



CARNARVONSHIRE
COMBINED SANITARY DISTRICTS.

REPORT

FOR THE

Year ending 31st December, 1904,

BY

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MEDICAL OFFICER OF HEALTH.

CARNARVON :

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1905.

TO THE

Joint Committee of the Carnarvonshire Combined
Sanitary Districts.

Carnarvon,

May, 1905.

Gentlemen,—

*I have the honour of submitting to you my
Annual Report upon the health of seventeen districts in
the County of Carnarvon, and eight districts in the
Counties of Merioneth, Denbigh, and Anglesey.*

I am, Gentlemen,

Your obedient Servant,

P. Fraser.

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THE CARNARVONSHIRE COMBINED SANITARY DISTRICTS AS A WHOLE.

1.—AREA AND POPULATION.—The area of the twenty-five Sanitary Districts comprised in the Combination is 568,806 acres, of which 534,004 lie in the eleven Rural Districts, and 34,802 in the fourteen Urban Districts.

The total estimated population of the districts at Mid-summer 1904 was 169,276, an increase of 1,541 from that at Mid-summer 1903.

2.—BIRTHS AND BIRTH-RATE.—The number of births registered during 1904 was 4,056, being at the rate of 23·9 per 1,000 of population. The birth-rate during 1903 was 24 per 1,000.

In England and Wales during 1904 the birth-rate was 27·9 per 1,000.

3.—DEATHS AND DEATH-RATE.—There were registered from all causes 2,836 deaths, or at the rate of 16·7 per 1,000 persons living. In 1903, the death-rate was 16·5 per 1,000.

In England and Wales during 1904 the general death-rate was 16·2 per 1,000.

4.—ZYMOTIC MORTALITY.—The seven chief Zymotic diseases caused 109 deaths, as follows:—

28	by	Scarlet Fever
22	„	Diarrhœa.
18	„	Diphtheria.
15	„	Enteric Fever.
13	„	Whooping Cough.
13	„	Measles.
0	„	Smallpox.

These 109 deaths were at the rate of 0·64 per 1,000 of population. In 1903, the Zymotic Mortality was 0·59 per 1,000.

The Zymotic Mortality in England and Wales during 1904 was 1·94 per 1,000.

The following table gives the death-rate from the principal Zymotic diseases in the Carnarvonshire Combined Districts, and in England and Wales.

DEATH-RATE FROM ZYMOTICS PER 1,000 OF POPULATION.

	Seven Principal Zymotics.	Smallpox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	"Fever."	Diarrhoea.
England and Wales, 1904	1·94	0·01	0·36	0·11	0·17	0·34	0·09	0·86
Carnarvonshire Combined Districts, 1904	0·64	0	0·07	0·16	0·10	0·07	0·08	0·13
Do. 1903	0·59	0·005	0·07	0·09	0·07	0·21	0·05	0·08

5.—INFANTILE MORTALITY.—Among infants under one year of age there were 512 deaths, or in the proportion of 126 per 1,000 registered births, as compared with 131 per 1,000 in 1903.

In England and Wales during 1904 the Infantile Mortality was 146 per 1,000 registered births.

6.—MORTALITY AMONG PERSONS AGED 65 AND UPWARDS.—The number of deaths at this age-period was 1,006, or at the rate of 5·9 per 1,000 of population. In 1903, the death-rate among aged persons was 5·8 per 1,000.

7.—DEATH-RATE FROM TUBERCULAR DISEASES.—Tubercular diseases were the cause of 404 deaths, or at the rate of 2·4 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 2·2 per 1,000.

8.—DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—To these were ascribed 322 deaths, or at the rate of 1·9 per 1,000 of population, as compared with 1·8 per 1,000 in 1903.

9.—DEATH-RATE FROM CANCER.—Cancer was the cause of 184 deaths, or at the rate of 1·1 per 1,000 of population. In 1903, the death-rate was 1·2 per 1,000.

URBAN AND RURAL DISTRICTS COMPARED.

1.—BIRTH-RATE.—In the eleven Rural Districts, with an estimated population of 94,560, there were registered 2,377 births, or at the rate of 25·1 per 1,000 of population.

In the fourteen Urban Districts, with an estimated population of 74,716, there were registered 1,679 births, or at the rate of 22·5 per 1,000 of population.

During the previous ten years the average Rural and Urban birth-rates respectively were 26·4 and 25·5 per 1,000 of population.

2.—DEATH-RATE.—In the Rural Districts 1,577 deaths were registered, or at the rate of 16·7 per 1,000 persons living.

In the Urban Districts there were registered 1,259 deaths, or at the rate of 16·8 per 1,000 of population.

The average death-rate during the previous ten years was 18 per 1,000 in the Rural Districts, and 18·6 per 1,000 in the Urban Districts.

3.—ZYMOTIC MORTALITY.—The seven principal Zymotic diseases were the cause of 55 deaths in the Rural Districts, as follows :—

Scarlet Fever	20
Diphtheria	10
Enteric Fever	10
Diarrhœa	7
Whooping Cough	5
Measles	3

These deaths were at the rate of 0·58 per 1,000 of population, as compared with an average rate of 0·85 per 1,000 during the previous ten years.

In the Urban Districts there were ascribed to the seven principal Zymotic diseases 54 deaths, or at the rate of 0·72 per 1,000 of population.

Diarrhœa	15
Measles	10
Diphtheria	8
Whooping Cough	8
Scarlet Fever	8
Enteric Fever	5

The Zymotic Mortality in the Urban Districts was at the rate of 0·72 per 1,000 of population. During the previous ten years the average rate was 1·13 per 1,000.

4.—INFANTILE MORTALITY.—Among infants under one year of age there were 285 deaths in the Rural Districts, or in the proportion of 120 per 1,000 registered births. The average Infantile Mortality in these Rural Districts during the previous ten years was 133 per 1,000 of population.

In the Urban Districts, 227 deaths of infants under one year of age took place, or in the proportion of 135 per 1,000 registered births, as compared with an average of 147 per 1,000 during the previous ten years.

5.—DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—In the Rural Districts 596 deaths of persons aged 65 and upwards took place, or at the rate of 6·3 per 1,000 of population.

In the Urban Districts there were 410 deaths at this age-period, or at the rate of 5·5 per 1,000 of population.

The average mortality of persons aged 65 and upwards during the previous ten years was 6·4 per 1,000 of population in the Rural Districts, and 5·2 per 1,000 in the Urban Districts.

6.—DEATH-RATE FROM TUBERCULAR DISEASES.—231 deaths were ascribed to Tubercular diseases in the Rural Districts, or at the rate of 2·4 per 1,000 of population.

In the Urban Districts, 173 deaths were caused by Tubercular diseases, or at the rate of 2·3 per 1,000 of population.

During the previous four years the average mortality from Tubercular causes was 2·4 per 1,000 in the Rural Districts, and 2·15 per 1,000 in the Urban Districts.

7.—DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Respiratory diseases were the cause of 195 deaths in the Rural Districts, or at the rate of 2·1 per 1,000 of population, and 127 deaths in the Urban Districts, or at the rate of 1·7 per 1,000 of population.

During the previous ten years the average death-rate from these diseases was 2·2 per 1,000 in the Rural Districts, and 2·3 per 1,000 in the Urban Districts.

8.—DEATH-RATE FROM CANCER.—In the Rural Districts 100 deaths were caused by Cancer, or at the rate of 1·1 per 1,000 of population.

In the Urban Districts, 84 deaths were caused by this disease, or at the rate of 1·1 per 1,000.

During the previous two years the average death-rate from Cancer was 1·2 per 1,000 in the Rural Districts, and 1·15 per 1,000 in the Urban Districts.

CONCLUSIONS FROM THE VITAL STATISTICS.

1.—The birth-rate in the Combined Districts, as in England and Wales, was the lowest on record. The fall from that of last year was a small one, 0·1 per 1,000 of population, as compared with 0·5 per 1,000 in England and Wales, but compared with the average for the previous ten years the fall of 2 per 1,000 of population was considerable.

As usual, the birth-rate in the agricultural districts was much lower than in the rural quarry districts, while in the urban districts the birth-rate in the health resorts was generally lower than in the more industrial towns.

2.—The general death-rate remained at practically the same level as in 1903. A reduction of 1·6 per 1,000 from the average of the previous ten years is to be noted. The Rural death-rate has been reduced 1·3 per 1,000 below the average, and the Urban death-rate 1·8 per 1,000.

3.—The Zymotic Mortality rose slightly from that of 1903, but was much below the average of the previous ten years, and was not a third of that of England and Wales. The only Zymotic disease, the death-rate from which was above the average, was Scarlet Fever. The death-rate from Whooping Cough, Measles, and Diarrhoea were unusually low. No deaths were caused by Smallpox.

4.—A most satisfactory feature was the reduction in the Infantile Mortality. With the exception of that during one year, the mortality among infants was lower than in any recent year. It was 20 per 1,000 births lower than that of England and Wales. In the Rural Districts, the Infantile Mortality was 13 per 1,000 births below the average of the previous ten years, and in the Urban Districts it was lower by 12 per 1,000.

5.—Among aged persons the death-rate has fallen slightly from the average in the Rural Districts, and was slightly higher in the Urban Districts. As a rule the death-rate among aged persons in the agricultural districts is much higher than in the quarrving districts.

6.—The death-rate from Tuberculosis during the year was high in the Rural and Urban Districts. The improvement in the Urban death-rate from Tuberculosis observed in 1903 has not been maintained.

7.—The improvement in the death-rate from Respiratory diseases was principally due to the Urban Districts.

8.—The death-rate from Cancer among the Rural as well as the Urban population has fallen slightly from the average of the previous two years.

NOTIFICATION OF INFECTIOUS DISEASE.

During the twelve months there were received 1,372 notifications, as follows:—

Scarlet Fever	1,092
Diphtheria	119
Erysipelas	99
Enteric Fever	51
Continued Fever	4
Puerperal Fever	4
Membranous Croup	2
Smallpox	1

In 1903, 836 notifications were received. The marked increase in the number of notifications was mainly due to an epidemic wave of Scarlet Fever which passed over a considerable portion of the Combined area. The districts principally affected were Gwyrfai, Carnarvon, Bangor, Conway, and Llandudno. The disease was of a much

milder type than in former years. Of the cases notified only $2\frac{1}{2}$ per cent. proved fatal.

SMALLPOX.

Once again Smallpox was imported into the Combined area. This case was that of a militiaman in camp on the Morfa at Conway. Occurring as it did in the midst of hundreds of men up for training, and at the commencement of the summer, the results might have been most serious in more ways than one, especially as there is no Smallpox hospital in the borough. The Conway Rural Authority humanely allowed the patient to be removed to their hospital at Llysfaen, and thus rendered invaluable assistance to the public at a time of great emergency.

Little progress can be recorded as regards the removal of the unpreparedness on the part of the great majority of the Combined Districts to deal with outbreaks of Smallpox. The Sanitary Authorities of the Borough of Conway and of Penmaenmawr Urban District have agreed to join with the Conway Rural Authority in maintaining a joint hospital.

For Gwyrfai and Llandudno there are iron hospitals of good type, and at Colwyn Bay a good-sized house has been leased as a Smallpox Hospital.

The remaining eighteen districts in the Combination are unprovided with Smallpox hospitals, although repeated requests have been made by the Local Government Board and the Joint Sanitary Committee to the various Sanitary Authorities to make arrangements for obtaining the necessary hospital accommodation for Smallpox cases.

The necessity for hospital accommodation for Smallpox is generally felt, and in face of the extreme importance of immediate isolation of Smallpox cases, the time seems to have come when a representation, under the Isolation Hospitals Act, 1893, should be made to the County Council of Carnarvonshire by one or more of the Sanitary Authorities concerned, requesting that a hospital district or hospital districts be declared. Experience has shown that one hospital for Smallpox will meet the requirements of a large area. The Gwyrfai hospital alone would probably suffice for the whole county of Carnarvon for the present generation.

TUBERCULOSIS.

The death-rate from Tubercular diseases in the Combined districts remains at a high level. As in 1903, Tuberculosis caused nearly four times as many deaths as all the seven principal Zymotic diseases taken together.

In the Rural Districts, the death-rate, 2·4 per 1,000 was the same as the average in those districts for the previous four years; while that in the Urban Districts, 2·3 per 1,000, was somewhat higher than the average.

The average death-rate from Tuberculosis in England and Wales during the ten years 1890—1900 was 2 per 1,000.

The following Rural Districts had an excessive death-rate from Tuberculosis:—Glaslyn (4·2), Geirionydd (3·2), Deudraeth (2·8), Gwyrfaï (2·7), Lleyn (2·6), Glan Conway (2·6).

The Rural Districts with the lowest death-rates from Tuberculosis were Conway (1·1), Ogwen (1·6), and Llanrwst (1·6).

The Urban Districts which suffered most from Tubercular diseases were Criccieth, Pwllheli, Llanfairfechan, Ynyscynhaiarn, and Carnarvon, with a mortality ranging from 6·4 to 2·8 per 1,000.

The Urban Districts with the lowest death-rate from Tuberculosis were Colwyn Bay, Bangor, Conway, and Llandudno.

With the aid of the Sanitary Inspectors a special investigation has been made into the prevalence of Tuberculosis in the Combined Districts. Some difficulty has been experienced in making this investigation, as Tuberculosis is not a notifiable disease, but in spite of this, very thorough work has been done in some districts. A large number of houses in which the disease was found to exist have been visited and their sanitary condition ascertained. To the cubic space, ventilation, lighting, and cleanliness of the living and sleeping rooms, and any signs of dampness, overcrowding, or other defects particular attention has been paid. The milk supply of the family, the question of heredity, and the previous and present health of its members were also enquired into. Advice as to the necessary preventive measures has been given, and the assistance of the Sanitary Authority in the disinfection of clothing, bedding, and infected rooms has been offered. A card, containing various recommendations, has been printed in

English and Welsh, and supplied to the houses discovered to be affected by Tuberculosis. This card reads as follows:—

CARNARVONSHIRE COMBINED SANITARY DISTRICTS.

PRECAUTIONS AGAINST CONSUMPTION.

As advised by Dr. Niven, M.O.H., Manchester.

1. Consumption is an infectious disease, liable to be communicated more particularly in damp, badly ventilated, and badly lighted houses and workshops.

2. It is usually communicated by the matter coughed up by consumptive people, which gets dried and dispersed as dust, thus reaching the lungs of those susceptible to the disease.

3. Such matters should, therefore, never be allowed to get dry. For that reason they should not be spat on the floors of a house, but either into pieces of rag or paper, which should be at once burned, or into a hand vessel containing water. This vessel should be emptied into the drains outside the house once a day, and then scalded and recharged with water.

4. Everyone affected with a chronic cough should take the same precautions as a consumptive person.

5. The same precautions should be observed in a workshop as at home.

6. Consumptive people should not spit into a pocket handkerchief, as both the handkerchief and their clothes are thus made infectious.

7. No one should spit on the ground inside any building or in a public conveyance.

8. The bowel discharges of consumptive people should be disinfected by being passed into a 15 per cent. solution of carbolic acid, or similar disinfectant, or simply into water, and the vessel, when emptied, should be at once scalded. Clothing or bedding soiled by consumptive people should be at once removed, and disinfected in a steam disinfector if possible. Boiling for half an hour is also a safe method of disinfection.

9. When it is settled that anyone is consumptive the house should be thoroughly disinfected and cleansed, and the patient should be thenceforward confined to certain parts of the house. On a request made to the Sanitary Inspector disinfection will be arranged for free of charge.

10. The rooms occupied by a consumptive person should be kept well ventilated, the windows kept open as much as possible, well lighted, and frequently cleansed. The floors should be washed with soap and water at least once a week. This will greatly aid in destroying the infection. In dusting a room moisten the floor with wet tea leaves, and use a damp duster to other parts of the room.

11. No one is more liable to inhale the dust from matters coughed than the consumptive himself. The removal of infectious matter is therefore calculated to promote his recovery. Moreover, if these precautions are strictly carried out he need not be a source of danger to anyone.

12. It is the duty of the attendant to see that the above precautions in regard to the phlegm and discharges are observed, and also to see that every obstacle to sufficient lighting and ventilation is removed.

13. In case of death the house will be disinfected by the Sanitary Inspector if this is desired. Infected rooms should be fumigated. The walls should be cleansed by rubbing them with dough, or else by limewashing or repapering them. The ceilings should be limewashed, and the floors scrubbed. A new tenant should not enter a house previously occupied by a consumptive person until such house has been thoroughly disinfected.

14. Amongst the agencies which act powerfully in causing Consumption are dampness in bedrooms, living rooms, or workshops, overcrowding, defective ventilation, insufficient admission of sunlight, occupations which involve the inhaling of irritating dust, and alcoholic excess. These should be avoided.

15. The milk of consumptive cows is very dangerous, especially to children. All milk should be boiled before use. As many animals suffer from Consumption, all meat should be thoroughly cooked.

P. FRASER,

Medical Officer of Health.

In about a fourth of the cases it was found that the family was predisposed to Tubercular disease. In about 6 per cent. other members of the family were stated to be suffering at the time of investigation from the same disease.

The great majority of the houses examined were found to be free from serious sanitary defects, but in 11 per cent. some defects such as dampness, insufficient cubic space, inadequate means of lighting and ventilation were discovered.

CANCER.

A slight improvement upon the average of recent years has taken place in the death-rate from Cancer. The mortality both in the Rural Districts and in the Urban Districts was 1.1 per 1,000, instead of 1.2 which was the average rate during the previous two years.

In the Rural Districts Glaslyn (2.5), Lleyrn (1.5), Deudraeth (1.3), Llanrwst (1.3), Geirionydd (1.2), suffered most. The Rural Districts least affected were Dwyran (0.33), Conway (0.43), Glan Conway (0.66), Ogwen (0.78), Aethwy (0.81), and Gwyrfai (0.88).

Among the Urban Districts Menai Bridge, Bethesda, Pwllheli, Llanrwst, Criccieth, Conway had the highest mortality, ranging from 2.9 to 1.4 per 1,000, while Bettwsycoed, Llandudno, Penmaenmawr, and Colwyn Bay, had low death-rates ranging from 0 to 0.8 per 1,000.

With the assistance of the Medical Practitioners in the Combined Districts a systematic attempt has been made to investigate a considerable number of these cases. Inquiry has been made into the health history of the family, the dwelling, the patient, and in other directions. It must be confessed that little definite information has been obtained which throws any light upon the causation of this dread disease.

Of the cases investigated 67 per cent. were over 60 years of age. In 16 per cent. a hereditary tendency to the disease was observed. In two cases only was there any suggestion that Cancer is an infectious disease. Ten per cent. of the patients had been addicted to the excessive use of alcohol or tobacco, and in one instance immoderate tea drinking was supposed to have had some share in causing the disease. In 10 per cent. of the dwellings, dampness, insufficient light, defective ventilation or other sanitary defects were found to exist.

LLANRWST RURAL SANITARY DISTRICT.

Area	59,284 acres.
Population, Census 1891	4,964
,, ,, 1901	4,591
Estimated population, June, 1904	4,467

BIRTH-RATE.—The number of births registered during the year was 101, or at the rate of 22·6 per 1,000 of population. In 1903, the birth-rate was 21·3 per 1,000.

DEATH-RATE.—There were registered from all causes 73 deaths, or at the rate of 16·4 per 1,000 of population.

In 1903, the death-rate was 15·7 per 1,000.

ZYMOTIC MORTALITY.—No death was caused by the principal Zymotic diseases. In 1903, the Zymotic Mortality was 1·1 per 1,000.

INFANTILE MORTALITY.—Among infants under one year of age there were 8 deaths, or at the rate of 79 per 1,000 registered births. In 1903, the Infantile Mortality was 156 per 1,000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—The deaths among persons at this period of life were 38 in number, or at the rate of 8·5 per 1,000, as compared with 6·6 per 1,000 in 1903.

DEATH-RATE FROM TUBERCULOSIS.—Tubercular diseases caused 7 deaths, or at the rate of 1·6 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 2 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—These diseases were the cause of 12 deaths, or at the rate of 2·7 per 1,000 of population, as compared with 1·7 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—Six deaths were ascribed to Cancer, or at the rate of 1·3 per 1,000 of population. In 1903, the death-rate from Cancer was 1·5 per 1,000.

A slight rise in the birth-rate and in the general death-rate has taken place from the rates in 1903. The absence of any Zymotic

mortality and a greatly lessened mortality among infants are the most noteworthy features. The mortality among aged persons and from the chief Respiratory diseases reached a high level.

INFECTIOUS DISEASE.—Ten cases of infectious sickness were notified, as follows:—

Scarlet Fever	7
Erysipelas	2
Diphtheria	1

The cases of Scarlet Fever were mainly in the Felinycoed district.

The Llangerniew School had to be closed for a short period in consequence of an outbreak of Mumps.

In 1903, 44 cases of infectious sickness were notified.

PROPOSED HOSPITAL FOR SMALLPOX.—No further action has been taken by the Council in regard to the matter.

SANITARY WORK.

WATER SUPPLY.—No portions of the district have been newly supplied with water during the year.

Steps are now being taken with the view of improving the supply to the village of Llangerniew.

SEWERAGE.—Nine houses at Llangerniew have been drained by the construction of 90 yards of main sewer laid by the Authority, and 110 yards of new drains laid by the landowner.

HOUSING ACCOMMODATION.—Only one new dwelling is reported as having been erected during the year. A systematic inspection of the villages by the Sanitary Inspector during the summer months has been carried out with good results.

DAIRIES AND COWSHEDS.—Fifteen dairies and fifteen cowsheds have been registered.

FACTORY AND WORKSHOP ACT, 1901.—The factories and workshops now on the register are 29 in number. Of these, 6 are Corn and

Flour Mills, 2 are Woollen Factories, 5 are Carpenters' Workshops, 5 Shoemakers' Workshops, 5 Smithies, 2 Tailors' Workshop, 2 Bakehouses, 1 Saddlers' Workshop, and 1 Dressmakers' Workshop. All are reported to be kept in a thoroughly cleanly condition, with ample air space, ventilation, and conveniences for the workers. The two bakehouses have been found in a sanitary condition and are regularly limewashed.

The number of inspections of Factories was 4, and of Workshops 24. No defects were found. No written notices were served and there were no prosecutions.

Report of Sanitary Inspector, Mr. Maurice Roberts, Tanyclogwyn, Llangerniew.

Total number of inspections and visits made 252

Infectious Disease.

No. of cases inquired into 12
 „ of houses disinfected 10

Dwellings.

No. erected 1
 „ made fit for habitation 0
 „ of cases of over-crowding 0

Drainage, &c.

No. laid or re-laid 200 yards at Llangerniew.
 „ cleansed, trapped, ventilated, &c. 200 yards.
 „ of new water closets 2
 „ of repairs to water closets 1
 „ of new privies and ashpits 7
 „ of privies converted into W.C.'s 0

Scavenging

No. of privies emptied 165
 „ of pan closets emptied 8
 „ of ashpits emptied 36

Refuse.

No. of accumulations removed 36 (by owners).

Water.

No. of new places supplied	0
,, of repairs, fittings, &c.	0

Dairies and Cowsheds.

No. of persons registered	15
,, of places in use and inspected ..	15

Slaughter-houses.

No. registered or licensed	0
----------------------------------	---

Offensive Trades.

No. dealt with	0
----------------------	---

Animals.

No. of cases causing nuisance	3
-------------------------------------	---

Lodging-houses.

No. registered and inspected	0
------------------------------------	---

Clerical Work.

No. of letters received	63
,, of letters written	130
,, of informal notices served	3
,, of informal notices complied with	2

Legal Proceedings.

No. of formal notices served	0
,, of formal notices complied with	0
,, of prosecutions	0

GEIRIONYDD RURAL SANITARY DISTRICT.

Area	56,074 acres.
Population, Census 1891	4,858
" " 1901	4,864
Estimated population, June, 1904	4,929

BIRTH-RATE.—There were registered during the year 121 births, or at the rate of 24·5 per 1,000 of population. In 1903, the birth-rate was 23·1 per 1,000.

DEATH-RATE.—The deaths from all causes numbered 108, or at the rate of 21·9 per 1,000 of population. Besides these, one death occurred in the Llanrwst Union Workhouse of a person belonging to this district. If this be added a corrected death-rate of 22·1 is obtained. In 1903, the corrected death-rate was 22·4 per 1,000.

ZYMOTIC MORTALITY.—One death was caused by the chief Zymotic diseases. This was a death from Diphtheria. The Zymotic Mortality was at the rate of 0·20 per 1,000 of population, as compared with 0·81 per 1,000 in 1903.

INFANTILE MORTALITY.—Among infants under one year of age there were 20 deaths, or at the rate of 165 per 1,000 registered births. In 1903, the Infantile Mortality was 186 per 1,000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—At this age-period there were 39 deaths, or at the rate of 7·9 per 1,000 of population, as compared with 9 per 1,000 in 1903.

DEATH-RATE FROM TUBERCULOSIS.—Tubercular diseases were the cause of 16 deaths, or at the rate of 3·2 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 1·8 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Respiratory diseases were the cause of 15 deaths, being at the rate of 3 per 1,000, as compared with 3·3 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—Six deaths were caused by Cancer, or at the rate of 1·2 per 1,000 of population. In 1903, the death-rate from Cancer was 2·4 per 1,000.

In the birth-rate a slight rise has taken place, while the death-rate has fallen slightly. In the mortality from Zymotic causes, from the chief Respiratory diseases, from Cancer, and in that among infants and aged persons an improvement is seen. The death-rate from Tuberculosis reached a high level.

INFECTIOUS DISEASE.—Eighteen cases of infectious disease were notified during the year. Of these, 11 were cases of Diphtheria, 4 of Scarlet Fever, and 3 of Erysipelas. The Diphtheria cases principally occurred in the Dolwyddelen district.

SANITARY WORK.

WATER SUPPLY.—The extension of the Trefriw water main in conjunction with the Llanrwst water main has been completed. The water is now obtained direct from Crafnant Lake, and is of excellent quality. The supply is abundant to all the houses in the village. The pressure has increased from 65 pounds to 135 pounds per square inch.

With the view of carrying out works of water supply for Cwm Penmachno, and to improve the supply of Penmachno, the sanction of the Local Government Board to a loan of £1,000 has been applied for.

SEWERAGE.—No portion of the district has been newly sewered during the year.

The proposed sewerage scheme for Cwm Penmachno has been abandoned for the present, in order that the water supply may be provided first.

SCAVENGING.—The Authority have secured a site as a tipping place for house refuse for Dolwyddelen. A tipping place has also been obtained in an isolated and convenient spot for the village of Penmachno.

COWSHEDS.—There are 32 cowsheds on the register of the Authority. They have been inspected twice during the year by the Sanitary Inspector. Limewashing of their interior every six months has been effected with good results.

SLAUGHTER-HOUSES.—The 8 private slaughter-houses in the district have been inspected regularly, and with one exception have been found in fair sanitary condition.

FACTORY AND WORKSHOP ACT.—The premises upon the register comprise 6 Factories, 22 Workshops, and 7 Workplaces. 11 visits of inspection were paid to the factories, 63 to the workshops, and 6 to the workplaces. No sanitary defects were discovered, so that no written notices or prosecutions were required. The air space in all cases was found sufficient, and the cleanliness, ventilation and sanitary arrangements were good.

Report of Sanitary Inspector, Mr. R. H. Williams, Cert. San. Inst., Trefriw.

No. of complaints received	63
„ „ inspections of houses or premises	594
„ „ orders for the sanitary amendment of houses	76
„ „ houses or premises cleansed, repaired, or whitewashed....	120
„ „ houses disinfected or supplied with disinfectants	76
„ „ house drains repaired, cleansed or trapped	42
„ „ house drains ventilated	9
„ „ privies and W.C.'s—new provided	13
„ „ privies and W.C.'s—repaired	43
„ „ W.C.'s supplied with water	11
„ „ accumulations of manure and refuse removed	18
„ „ animals removed on account of being nuisances	2

DEUDRAETH RURAL SANITARY DISTRICT.

Area	75,630 acres.
Population, Census 1891	8,208
,, ,, 1901	8,039
Estimated population, June, 1904	7,984

BIRTH-RATE.—There were registered during the year 220 births, or at the rate of 27·6 per 1,000 of population. In 1903, the birth-rate was 26 per 1,000.

DEATH-RATE.—The number of deaths registered from all causes was 125, or at the rate of 15·6 per 1,000 of population. Of these, 8 were of persons from outside the district who died in the Union Work-house. If these be deducted, a corrected death-rate of 14·7 per 1,000 is obtained.

In 1903, the corrected death-rate was 17·5 per 1,000 of population, and the gross death-rate 18·2 per 1,000.

ZYMOTIC MORTALITY.—The chief Zymotic diseases were the cause of 7 deaths. Of these, 2 were due to Enteric Fever, 2 to Measles, 1 to Diphtheria, 1 to Whooping Cough, and 1 to Diarrhœa. The Zymotic Mortality was 0·88 per 1,000, as compared with 0·5 per 1,000 in 1903.

INFANTILE MORTALITY.—Among infants under one year of age there were 20 deaths, or in the proportion of 91 per 1,000 registered births. In 1903, the Infantile Mortality was 187 per 1,000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Among persons aged 65 and upwards there were 44 deaths, or at the rate of 5·5 per 1,000 of population. In 1903, the death-rate among aged persons was 5·8 per 1,000.

DEATH-RATE FROM TUBERCULOSIS.—Tubercular diseases were the cause of 22 deaths, or at the rate of 2·8 per 1,000 of population. In 1903, the death-rate from Tubercular diseases was 3·4 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases were the cause of 7 deaths, or at the rate of 0·88 per 1,000 of population, as compared with 1·5 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—Ten deaths were due to Cancer, or at the rate of 1·3 per 1,000 of population. In 1903, the death-rate from Cancer was 1 per 1,000.

In the birth-rate a rise has taken place. The general death-rate was much below the average during recent years. For this improvement a greatly lessened mortality among infants was mainly responsible. The death-rate from Tuberculosis was at a high level.

INFECTIOUS DISEASE.—Thirty-nine notifications of infectious disease were received. These were:—Scarlet Fever 31, Enteric Fever 4, Erysipelas 3, and Diphtheria 1. The cases of Scarlet Fever occurred mainly in the Penrhyndeudraeth and Llanbedr districts, and the Enteric cases in Harlech. The schools at Talsarnau, Penrhyndeudraeth, Maentwrog, and Trawsfynydd were closed owing to outbreaks of Influenza, Measles, or Whooping Cough, and that at Llanbedr was closed owing to Scarlet Fever.

In 1903, 19 cases of infectious sickness were notified.

SANITARY WORK.

WATER SUPPLY.—An abundant supply of water of excellent quality has been enjoyed throughout the year by the residents of Penrhyndeudraeth and Minffordd.

The Council has been enabled to make considerable progress with the Harlech water scheme. The consent of the Local Government Board to a loan of £1,900 for the work was received in May last. The new reservoir, which has a capacity of 500,000 gallons has been constructed, and the entire scheme is now in an advanced state of completion. The laying of the new four inch main has been accomplished, and it is hoped that the new scheme will be in operation during the summer of 1905.

The proposal to obtain a supply of water for the village of Trawsfynydd from Llyn Hiraethlyn, a mountain lake on the slope of Cwm Prysor, has had to be postponed, as owing to the action of the War Office authorities, who, at one time contemplated buying the lake, the owner is not now in a position to state whether or not he can treat with the Council. It is to be hoped if this source will not be available that the Authority will be able to find another suitable source of water supply for the increasing population of Trawsfynydd.

The owner of the Talsarnau water works has constructed an additional storage reservoir, in order to tide over periods of dry weather.

SEWERAGE.—At the village of Trawsfynydd 100 yards of six inch sewer were laid to serve six houses, which have since been connected.

With this exception no new sewerage works were undertaken by the Authority during the year.

The public sewers at Penrhyndeudraeth, Talsarnau, and Trawsfynydd were maintained in good working order.

A new scheme for the sewerage of Minffordd has been proposed, a preliminary plan of which has been submitted to the Local Government Board, and is now under their consideration. The sewage is proposed to be dealt with in a septic tank, and the effluent discharged on sandy land, on the principle of broad irrigation.

The Harlech drainage scheme is still in abeyance, pending the completion of the water scheme.

The proposal to construct a sewer for Llanbedr, with an outlet into tidal water has not been carried into effect, but the Authority have arranged for weekly removal of house refuse so as to avoid pollution of the stream by solid refuse.

SCAVENGING.—Good work continues to be done by the Authority in this important particular. The house refuse of the villages of Penrhyndeudraeth and Minffordd is regularly removed every fortnight, and that of Llanbedr, Harlech, Talsarnau, and Trawsfynydd every week. The total cost of this work is £120 per annum. The village of Maentwrog is scavenged at the expense of the owners.

DAIRIES, COWSHEDS, AND MILKSHOPS ORDER.—Twelve persons applied to be registered as dairymen and cowkeepers. The various premises were inspected by the Sanitary Inspector, and notices have been issued by the Authority to remedy various defects as regards ventilation, flooring, and general cleanliness. Much improvement has already resulted.

FACTORY AND WORKSHOPS ACT.—The workshops now on the register are 35 in number, classified as follows:—

Bakehouses	9
Smithies	8
Joiners' Workshops	6
Shoemakers' do.	6
Dressmakers' do.	4
Fellmongers' do.	1
Mineral Water Works	1

In most of these workshops, only one person is employed, and in the remaining ones, only two, three or four persons were found on the visits of the Sanitary Inspector. Upon the whole the premises were found in a satisfactory condition, and the minor defects discovered were remedied after the attention of the occupiers was directed to them. Two written notices were served. No prosecutions were required.

Report of Sanitary Inspector, Mr. Thomas Jones, Maentwrog.

No. of complaints received	31
„ „ inspections of houses or premises	352
„ „ orders given for the sanitary amendment of houses or premises	352
„ „ houses or premises cleansed, repaired, or limewashed....	61
„ „ houses disinfected or supplied with disinfectants	31
„ „ houses closed as unfit for occupation	2
„ „ house drains repaired, cleansed, or trapped	62
„ „ privies and W.C.'s newly provided or repaired	43
„ „ W.C.'s newly supplied with water	4
„ „ houses newly supplied with water	8
„ „ animals removed on account of being nuisances	5

GLASLYN RURAL SANITARY DISTRICT.

Area	49,912 acres.
Population, Census 1891	3,621
,, ,, 1901	3,598
Estimated population, June, 1904....	3,590

BIRTH-RATE.—There were registered during the year 82 births, or at the rate of 22·8 per 1,000 of population. The birth-rate in 1903 was 28·4 per 1,000 of population.

DEATH-RATE.—The number of deaths registered from all causes was 80, or at the rate of 22·3 per 1,000 persons living. Of these, one was of a person from outside the district, while on the other hand, 3 persons belonging to Glaslyn died in Carnarvon and Liverpool hospitals. If these deaths be allowed for a corrected death-rate of 22·8 per 1,000 is obtained.

In 1903, the death-rate was 14·8 per 1,000.

ZYMOTIC MORTALITY.—Six deaths were caused by the principal Zymotic diseases. Of these, 4 were caused by Diphtheria, and 2 by Enteric Fever. The Zymotic Mortality was 1·7 per 1,000. In 1903, it was 0·28 per 1,000.

INFANTILE MORTALITY.—Among infants under one year of age there were 7 deaths, or in the proportion of 85 per 1,000 registered births. In 1903, the Infantile Mortality was 99 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—In this group there were 25 deaths, or at the rate of 7 per 1,000 of population. In 1903, the death-rate among aged persons was 4·7 per 1,000.

DEATH-RATE FROM TUBERCULOSIS.—Fifteen deaths were caused by the Tubercular diseases, or at the rate of 4·2 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 2·5 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—These diseases caused 7 deaths, or at the rate of 1·9 per 1,000 of population, as compared with 1·1 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—Cancer was the cause of 8 deaths, or at the rate of 2·5 per 1,000 of population. In 1903 the death-rate from Cancer was 1·1 per 1,000.

The birth-rate during the year was unusually low. The general death-rate was considerably above the average. This was contributed to by a high mortality among aged persons and from Zymotic and Tubercular diseases. The death-rate from Cancer was also high. The mortality among infants was a satisfactory one.

INFECTIOUS DISEASE.—Twenty-six cases of infectious disease were notified during the twelve months. These were:—Diphtheria 17, Scarlet Fever 5, Enteric Fever 2, Erysipelas 2.

The cases of Diphtheria occurred in the Garn district and were of a serious type. During the course of this outbreak much danger to the public health was occasioned to the public through the non-notification of cases.

The Garn Schools were closed by the Authority for eight weeks owing to the spread of the disease.

In 1903, 5 cases of infectious disease were notified.

SANITARY WORK.

WATER SUPPLY.—*Beddgelert*.—There is not much progress to be reported in regard to the scheme of water supply which has been decided upon for this village. Things are now in a fair way to enable the Authority to proceed.

Prenteg.—A difficulty has delayed the scheme of the Authority for the supply of water to Prenteg from being carried out, but it is now hoped that immediate progress will be made. Plans and estimates are about to be sent up to the Local Government Board, and their sanction to a loan to carry out the scheme asked for.

Penmorfa.—The Council hope to be able to report progress with this scheme very shortly. The owner of the land from which it is proposed to obtain the supply has given his consent to the abstraction of water.

Rhyd-ddu.—Nothing further has been done with regard to the water supply of this village.

The new well at Garn yields a satisfactory supply.

SEWERAGE.—The scheme for the sewerage of Beddgelert is at a standstill. The Council have so far failed to obtain the consent of one of the landowners with regard to the land through which it is proposed to carry the main sewer, and on which it is proposed the sewage should be treated. It is felt that the construction of the new railway now going on will necessitate this scheme being modified to some extent.

A scheme for the sewerage of the village of Prenteg has been prepared, but no progress has been made with it owing to the difficulty of arriving at terms of settlement in regard to the land on which it is proposed to construct sewage tanks.

Nothing definite has been done in regard to the sewerage of Penmorfa or Rhyd-ddu villages.

No new sewers were constructed during the year.

HOUSE ACCOMMODATION.—No plans of new houses have been submitted during the year. Two new houses were built and eight others were renovated.

The owners of 19 houses at Prenteg have been served by the Sanitary Authority with notices to provide proper privy accommodation, and in consequence, sixteen new privies were erected by them.

A statutory notice to remedy certain sanitary defects has been sent to the owner of Tafarnfaig, where a fatal case of Diphtheria had occurred.

SCAVENGING.—The Joint Committee of the three Councils of Glaslyn, Gwyrfa, and Carnarvon has done good work by the systematic scavenging of the village of Rhyd-ddu, so as to protect the stream from pollution as much as possible.

The Authority continue to regularly remove the house refuse of Beddgelert, and have also decided to arrange for the scavenging of Prenteg.

DAIRIES AND COWSHEDS.—There are ten farmers selling milk in the district, but none have applied to be registered. The cowsheds are generally defective in air space.

FACTORY AND WORKSHOP ACT.—To the 22 workshops and workplaces 16 visits have been paid by the Sanitary Inspector. Want of cleanliness was found in one case, and want of ventilation in another. One written notice was served. The four bakehouses were white-washed twice during the year.

Report of Sanitary Inspector, Mr. R. W. Jones, Gesail, Garn R.S.O.

No. of complaints received	25
„ „ inspections of houses or premises	72
„ „ orders given for the sanitary amendment of houses	16
„ „ houses disinfected or supplied with disinfectants	26
„ „ house drains repaired, cleansed or trapped	8
„ „ privies—new provided	19
„ „ privies—repaired	6
„ „ accumulations of manure and refuse removed	14

LLEYN RURAL SANITARY DISTRICT.

Area	91,449 acres.
Population, Census 1891	17,555
" " 1901	16,692
Estimated population, June, 1904....	16,421

BIRTH-RATE.—The number of births registered during the twelve months was 357, or at the rate of 21·7 per 1,000 of population. The birth-rate in 1903 was 21·6 per 1,000.

DEATH-RATE.—There were registered from all causes 300 deaths. Besides these, 2 deaths occurred in the Union Workhouse, Pwllheli, of persons belonging to Lleyn. With the addition of these, the corrected death-rate was 18·3 per 1,000.

In 1903, the corrected death-rate was 17 per 1,000.

ZYMOTIC MORTALITY.—Five deaths, or at the rate of 0·30 per 1,000 of population were due to the chief Zymotic diseases. Of these 2 were due to Scarlet Fever, 2 to Diarrhœa, and 1 to Diphtheria.

In 1903, the Zymotic Mortality was 0·18 per 1,000.

INFANTILE MORTALITY.—Among infants under one year of age there were 35 deaths, or in the proportion of 98 per 1,000 registered births. In 1903, the Infantile Mortality was 107 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Among persons of this period of life there were 134 deaths, or at the rate of 8·1 per 1,000 of population. In 1903, the death-rate among aged persons was 7·5 per 1,000.

DEATH-RATE FROM TUBERCULOSIS.—Tubercular diseases were the cause of 42 deaths, or at the rate of 2·6 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 2·1 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Respiratory diseases were the cause of 38 deaths, or at the rate of 2·3 per 1,000 of population, as compared with 1·9 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—Twenty-five deaths were ascribed to Cancer, or at the rate of 1·5 per 1,000 of population. In 1903, the death-rate from Cancer was 1·8 per 1,000.

The birth-rate remained at the usual low level. The general death-rate was slightly above the average death-rate of recent years. The mortality from Zymotic causes and among infants was considerably below the average, but that from Tuberculosis, the chief Respiratory diseases, and among aged persons was higher than usual.

INFECTIOUS DISEASE.—Forty-eight notifications of infectious disease were received, as follows:—Scarlet Fever, 40, Erysipelas 5, Diphtheria 2, Enteric Fever 1.

The outbreak of Scarlet Fever affected the Nevin district more especially.

In 1903, 14 cases of infectious disease were notified.

SANITARY WORK.

The absence of bye-laws for the district continues to be a drawback to progress in sanitary matters, more practically in the villages and growing summer resorts.

WATER SUPPLY.—Good progress has been made with the scheme for supplying Nevin and Morfa Nevin with water from several hill-side springs. The contract to carry out the works for the sum of £2,922 was let in June, 1904, and it is to be completed by July 15th, 1905. The water mains and branches have all been laid, and the excavations for the reservoir are nearing completion.

SEWERAGE.—At Nevin a length of 235 yards of twelve inch sewer, and 273 yards of 9 inch sewer have been laid to serve Well Street, High Street, Moriah Street, and Tower Terrace.

Plans and an estimate of the cost of a sewer for Abersoch have been prepared by the Surveyor, but the Authority have decided to defer the work for the present.

No further progress in the sewerage of Abererch, Llanaelhaiarn, Fourcrosses, Chwilog, and Llithfaen has been made.

It is expected that the plans for the sewerage of Trevor will be completed shortly. Some alterations at the outfall have delayed their preparation.

SCAVENGING.—In all the villages in this district the removal of house refuse is left entirely to the occupiers.

FACTORY AND WORKSHOP ACT.—Nothing has been done during the year under this Act.

MATTERS SPECIALLY REPORTED.

Houses reported unfit for occupation.—At Ty'nlon, Tydweiliog, a new house has been built by the property owner.

The occupier of Tan'rallt, Efail Newydd, has been provided with another dwelling.

To the houses Tanybryn, Llangybi, and Penfoel Bach, Llaniestyn, nothing appears to have been done.

The numerous houses at Llithfaen, without privy accommodation, and consequently unfit for occupation, have not been provided with the necessary conveniences by the owners, although the owner of some of them is a member of the Sanitary Authority.

For the two rows of houses at Efail Newydd drains and sanitary conveniences have been constructed.

The different owners at Bottwnog are endeavouring to come to some arrangement whereby a supply of water may be obtained for the village by sinking a shaft. Up to the present nothing definite has been done.

The well at Abersoch reported to the Authority as requiring protection against surface pollution is still unprotected.

Report of Sanitary Inspector, Mr. Harry Roberts, Lleiniau, Chwilog.

No. of complaints received	17
„ „ inspections of houses or premises	261

No. of orders given to the sanitary amendment of houses	28
„ „ houses or premises cleansed, repaired, or whitewashed....	2
„ „ houses disinfected or supplied with disinfectants	33
„ „ house drains repaired, cleansed, or trapped	7
„ „ house drains ventilated	1
„ „ privies and W.C.'s—new provided	14
„ „ privies and W.C.'s—repaired	10
„ „ W.C.'s supplied with water	1
„ „ accumulations of manure, and refuse removed	6
„ „ animals removed on account of being nuisances	3

GWYRFAI RURAL DISTRICT COUNCIL.

Area	70,441 acres.
Population, Census 1891	27,737
,, ,, 1901	29,838
Estimated population, June, 1904 ...	30,578

BIRTH-RATE.—The births registered during the twelve months numbered 812, or at the rate of 26·5 per 1,000 of population. In 1903, the birth-rate was 26·3 per 1,000.

DEATH-RATE.—There were registered during the twelve months 489 deaths, or at the rate of 16 per 1,000 persons living. Besides these, 10 deaths of persons belonging to the Gwyrfaï Rural Sanitary District occurred in public institutions outside the district. The addition of these gives a corrected death-rate of 16·3 per 1,000.

In 1903, the corrected death-rate was 17·2 per 1,000.

ZYMOTIC MORTALITY.—Eighteen deaths were caused by the seven principal Zymotics, or at the rate of 0·59 per 1,000 of population. Of these, 13 were caused by Scarlet Fever, 3 by Enteric Fever, 1 by Diphtheria, and 1 by Diarrhœa.

In 1903, the Zymotic Mortality was 0·69 per 1,000 of population.

INFANTILE MORTALITY.—Among infants under one year of age there were 111 deaths, or at the rate of 137 per 1,000 registered births. In 1903, the Infantile Mortality was 140 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—At this period of life there were 151 deaths, or at the rate of 4·9 per 1,000 of population. In 1903, the death-rate among aged persons was 5·5 per 1,000.

DEATH-RATE FROM TUBERCULOSIS.—Tubercular diseases were the cause of 82 deaths, or at the rate of 2·7 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 3·1 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases were the cause of 67 deaths, or at the rate of 2·2 per

1,000 of population. In 1903 and in 1902 the death-rate from these diseases was 2·1 per 1,000.

DEATH-RATE FROM CANCER.—Cancer was responsible for 27 deaths, or at the rate of 0·88 per 1,000 of population. In 1903, the Cancer death-rate was 1·2 per 1,000.

It is satisfactory to find, while the birth-rate has been maintained, the general death-rate was 2·8 per 1,000 below the average of the previous ten years. The mortality among infants and aged persons, and that from the chief Zymotic diseases, Tuberculosis and Cancer show some improvement.

INFECTIOUS DISEASE.—The number of infectious cases notified during the year was 607, and comprised the following:—

Scarlet Fever	537
Erysipelas	33
Diphtheria	17
Enteric Fever	14
Continued Fever	4
Puerperal Fever	2

The large number of Scarlet Fever occurred mainly in Groeslon, Penygroes, Llanllyfni, Talysarn, Nantlle, Capel Uchaf, Clynnog, and Upper Llandwrog, which districts were successively invaded by the epidemic. Fortunately the disease was usually mild in type, and only $2\frac{1}{4}$ per cent. of the cases proved fatal. The Talysarn, Penygroes, Llanllyfni, Nantlle, Clynnog, Bronyfoel, Rhostryfan, and Rhosgadfan Schools had to be closed for several weeks on account of the outbreak.

Besides Scarlet Fever there was little infectious illness throughout the year.

In consequence of numerous cases of Measles, the Glanmoelyn and Bryn Eryr Schools were closed for a period with good results.

In 1903, 254 notifications were received.

SANITARY WORK.

WATER SUPPLY.—The population of Nantlle Vale throughout the year enjoyed an ample supply of excellent water from Dulyn Lake. Forty-nine houses were newly connected with the system.

The new water supply for Portdinorwic proved satisfactory throughout the year. The main was extended a distance of 130 yards. One additional standpipe was placed in the middle of a populous part and has been a great boon. A supply to the two schools and to several houses has been provided.

The water supply of Bryn'refail was much improved by the laying of 550 yards of three inch cast iron pipes instead of the $\frac{3}{4}$ inch lead pipes previously existing. The spring which is the source of supply has been protected from surface pollution.

A local inquiry was held by the Local Government Board respecting the application of the Authority to borrow £1,700 for the purpose of supplying the high lying districts of Caesarea and Bw'chyllyn with water. The sanction of the Department has now been received, and the work is to be commenced at once. The scheme of the Surveyor is a novel one, and the work is being watched with great interest.

Several wells were repaired during the year. A new supply for the Gallt-y-foel district is now being provided from hillside springs.

Nothing further has been done in the direction of obtaining a supply of water for Groeslon.

For Rhostryfan several possible source of supply are under observation.

An application for the sanction of the Local Government Board to a loan of £520 for water supply works for the village of Caeathraw has been made. A local inquiry was held and it is hoped the approval of the Department will be given after the legal formalities as to the consent to take the water shall have been completed.

The water supply for part of Waenfawr from the pipes laid during 1903 has been satisfactory.

SEWERAGE.—The new sewers at Bryn'refail have been maintained in good order.

At Penisa'rwaen all the houses have been connected to the new sewer. The sewage is run on to a continuous filter which acts well in purifying the sewage.

The sewerage of the Creigiau Mawr district of Talysarn has been completed, and arrangements are in hand for the Council's workmen to connect about 90 houses with the sewers.

At Carmel 400 yards of nine inch sewer have been laid, and at Groeslon 110 yards.

At Portdinorwic 150 yards of nine inch sewer were laid in the upper portion of the village.

Insanitary rubble drains in Beach Road, Snowdon Street, and Menai Street, have been removed.

HOUSE ACCOMMODATION.—Plans of over 60 new houses were approved by the Authority. These were principally in the parishes of Llanllyfni, Llandwrog, Llanwnda, Waenfawr, Llanrug, Llanberis, and Llanddeiniolen. All were suitable for workingmen's families and show a marked advance upon the older type of cottage.

SCAVENGING.—The Sanitary Authority acting through the various Parochial Committees have arranged for the regular removal of house refuse from the villages of Portdinorwic, Llanberis, Ebenezer, Clwt-ybont, and Gallt-y-foel district. This necessary work is carried out much more effectually than formerly in these villages with much benefit to the residents.

No systematic removal of house refuse has been arranged for the villages of Nantlle Vale.

COWSHEDS AND DAIRIES.—There are 99 cowkeepers and dairymen registered under this Order. During the year 9 new premises were placed on the register. Their sanitary condition has been found fairly satisfactory. In 11 instances orders to whitewash were given.

SLAUGHTER-HOUSES.—The 48 private slaughter-houses in the district have been inspected. In 14 cases verbal notices to whitewash the interior were given, and 7 notices to remove manure heaps.

FACTORY AND WORKSHOP ACT.—There are now on the register 98 workshops, comprising 28 Tailors', 34 Milliners' and Dressmakers', 32 Bakers', and 4 Shoemakers' workshops. Seven new premises were registered during 1904. Most of the workshops were inspected during the year. Three notices to cleanse, and fifteen to whitewash were given.

MATTERS SPECIALLY REPORTED.

Proposed arrangement with Carnarvon Town Council to secure hospital treatment for fever patients.—Up to the present time the two Councils concerned have failed to agree to the proposed arrangement by which patients from the Gwyrfai district suffering from Scarlet Fever, Diphtheria, or Enteric Fever might be removed to the Borough Isolation Hospital for treatment, and on the other hand patients from Carnarvon suffering from Smallpox to be removed to the Gwyrfai Hospital. The result is that neither of the two districts has in readiness hospital accommodation for all the usual fevers.

Urban Powers.—Further urban powers, under the Public Health Amendment Act, 1890, for six parishes with a population of over 23,000 have been sanctioned by the Local Government Board. These comprise the powers conferred by sections 20, 22, 24, 26, 27, 29, 30, 34, 35, and 36. Some of these powers have already been of much service.

Public Slaughter-house for Nantlle Vale.—Nothing further has been done towards providing a public slaughter-house, although it is becoming more and more evident that the present system is unsatisfactory.

Tent and Sheds at Rhyd-ddu.—A tent and sheds erected close to the river at Rhyd-ddu, providing primitive accommodation for men employed in the construction of a new railway at Rhyd-ddu were reported upon. Their removal to another site, at a greater distance from the river, was advised on account of the danger of polluting the water supply of Carnarvon.

Report of Sanitary Inspector, Mr. R. H. Parry, Glan'rafon Bach.

No. of inspections of houses or premises	938
„ „ orders given for the sanitary amendment of houses	258
„ „ houses disinfected or supplied with disinfectants	553
„ „ house drains repaired, cleansed or trapped	103
„ „ privies and W.C.'s—new provided	25
„ „ privies and W.C.'s—repaired	53
„ „ W.C.'s supplied with water	5
„ „ accumulations of manure and refuse removed	42
„ „ animals removed on account of being nuisances	6
„ „ seizures of diseased meat or food	1
„ „ houses closed as unfit for habitation	1

DWYRAN RURAL SANITARY DISTRICT.

Area	15,544 acres,
Population, Census 1891	3,171
" " 1901	3,055
Estimated population, June, 1904	3,018

BIRTH-RATE.—There were registered during the year 70 births, or at the rate of 23·2 per 1,000 of population. In 1903, the birth-rate was 23·4 per 1,000.

DEATH-RATE.—From all causes there were registered 50 deaths, or at the rate of 16·6 per 1,000 persons living. Besides these deaths, two persons belonging to Dwyran died in the Union Workhouse, Carnarvon. If these be added a corrected death-rate of 17·2 per 1,000 is obtained. In 1903, the corrected death-rate was 17·8 per 1,000.

ZYMOTIC MORTALITY.—Four deaths were occasioned by the principal Zymotic diseases. These were at the rate of 1·3 per 1,000 of population, and were all due to Scarlet Fever. In 1903, the Zymotic Mortality was nil.

INFANTILE MORTALITY.—Among infants under one year of age, there were 14 deaths, or at the rate of 200 per 1,000 registered births. In 1903, the Infantile Mortality was 70 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Of persons at this period of life there were 15 deaths, or at the rate of 5·0 per 1,000 of population. In 1903, the death-rate among aged persons was 10·2 per 1,000.

DEATH-RATE FROM TUBERCULOSIS.—To Tubercular diseases were ascribed 7 deaths, or at the rate of 2·3 per 1,000 of population. In 1903, the death-rate from Tuberculosis was the same.

DEATH-RATE FROM THE CHIEF LUNG DISEASES.—These diseases were the cause of 5 deaths, or at the rate of 1·7 per 1,000 of population, as compared with 1·6 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—Cancer was the cause of one death, or at the rate of 0·33 per 1,000 of population. In 1903, the death-rate from Cancer was 2 per 1,000.

As usual the birth-rate was a low one. The general death-rate was considerably below the average of the previous ten years. The mortality from Zymotic causes and that among infants was higher than usual.

INFECTIOUS DISEASE.—During the twelve months 13 cases of infectious disease were notified, all of which were cases of Scarlet Fever. The outbreak principally affected the Newborough district.

Owing to an outbreak of Measles the Newborough School was closed for several weeks.

In 1903, one case of infectious disease was notified.

SANITARY WORK.

WATER SUPPLY.—The work of sinking a new well at Brynsiencyn has been completed, and from the shaft, 22 feet in depth, an ample supply of water is obtained for over 40 houses. The total cost was £62.

A most useful undertaking has been carried to a successful issue at Newborough by the laying of 625 yards of iron main to supply a population of about 150 in the Penlôn district.

SEWERAGE.—Eighty-four yards of new sewer were laid at Brynsiencyn, by which ten houses have been drained, and several objectionable nuisances abated.

FACTORY AND WORKSHOP ACT.—No special attention has been paid in this district to the Workshops Act in the past. The few workshops in this purely agricultural district employ one or two hands in each. Their sanitary condition is to be investigated by the Sanitary Inspector.

MATTERS SPECIALLY REPORTED.

The sanitary defects at the three houses, Clogwyn Llwyd, Clogwyn and Caerlyn, have not yet been remedied.

At Brynsiencyn, several nuisances, through the keeping of animals have been abated. The construction of two new sewer extensions, so as to drain ten houses and two offensive pools, has much improved the sanitation of this village.

Report of Sanitary Inspector, Mr. R. Edwards, Taihirion, Llangaffo.

No. of complaints received	8
„ „ inspections of houses or premises	70
„ „ houses disinfected or supplied with disinfectants	12
„ „ house drains repaired, cleansed, or trapped	6
„ „ animals removed on account of being nuisances	7

OGWEN RURAL SANITARY DISTRICT.

Area	44,058 acres.
Population, Census 1891	7,226
" " 1901	6,593
Estimated population, June, 1904	6,399

BIRTH-RATE.—There were registered during the year 185 births, or at the rate of 28·9 per 1,000 of population. In 1903, the birth-rate was 23·1 per 1,000.

DEATH-RATE.—The number of deaths from all causes was 101, or at the rate of 15·8 per 1,000 persons living. The addition of five deaths of persons from Ogwen who died in public institutions elsewhere brings the death-rate to 16·6 per 1,000. In 1903, the death-rate was 18·4 per 1,000.

ZYMOTIC MORTALITY.—The principal Zymotic diseases were the cause of 2 deaths, one being due to Scarlet Fever and the other to Enteric Fever. The Zymotic Mortality was 0·31 per 1,000 of population, as compared with 1·08 per 1,000 in 1903.

INFANTILE MORTALITY.—Among infants under one year of age there were 21 deaths, or in the proportion of 114 per 1,000 registered births. In 1903, the Infantile Mortality was 141 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Among persons at this age-period there were 42 deaths, or at the rate of 6·6 per 1,000 of population, as compared with 7·6 per 1,000 in 1903.

DEATH-RATE FROM TUBERCULOSIS.—Tubercular diseases were the cause of 10 deaths, or at the rate of 1·6 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 1·5 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—To these diseases were ascribed 12 deaths, being at the rate of 1·9 per 1,000 of 1,000 of population, as compared with 2·3 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—Cancer was the cause of 5 deaths, or at the rate of 0·78 per 1,000 of population. In 1903, the death-rate from Cancer was 1·5 per 1,000.

The birth-rate of the year was much above the average of the previous ten years, and the general death-rate was much below. The low mortality from Zymotic causes, and the lessened death-rate from Tuberculosis and among infants are satisfactory features.

INFECTIOUS DISEASE.—32 notifications of infectious disease were received during the year, as follows :—Scarlet Fever 22, Enteric Fever 6, Erysipelas 3, Diphtheria 1.

Three cases of Scarlet Fever were removed to the Bangor Isolation Hospital.

During 1903, 27 notifications were received.

SANITARY WORK.

WATER SUPPLY.—At Tregarth six houses were supplied with water by the laying of 40 yards of new main. The water has been analysed and found to be of excellent quality.

Most of the villages now possess an ample supply of good water. Minffordd and Llandegai are well supplied from the Bangor mains.

SEWERAGE.—A noteworthy improvement has been the provision by the Authority of a modern sewer for the village of Penrhosgarnedd. Twenty-four houses have been connected with it. The sewage flows into a filter tank, the effluent from which is discharged on to land.

At Tregarth 45 yards of new sewer were laid to serve 6 houses, and at Hen Gapel Graig 60 yards to serve 7 houses.

The sewer and sewage tanks at Glasinfryn have been maintained in good order. The tanks are cleared every three months, and the flushing of the drains and sewers well attended to.

DAIRIES AND COWSHEDS.—There are 26 registered dairies in the district. Much milk is produced and sold in Bangor, Bethesda, Llanfairfechan, and Portdinorwic. The adoption and carrying out of Regulations under the Dairies and Cowsheds Order, as recommended by the Joint Sanitary Committee, would be of undoubted assistance to the Authority in this important duty of supervising the milk supply.

HOUSE ACCOMMODATION.—A noteworthy improvement has been the construction of 7 new houses at Hen Gapel Graig, which have replaced several old cottages condemned some years back.

Seven houses at Penrhosgarnedd were reported as unfit for occupation. They have since been placed in better sanitary condition, but still some arrangement for regularly removing house and privy refuse is greatly needed.

FACTORY AND WORKSHOP ACT.—There are 6 factories and 9 workshops on the register. During the year 36 visits of inspection were paid. In thirteen instances sanitary defects were discovered, all of which were subsequently remedied.

Various defects at a public bakehouse at Penrhosgarnedd have been attended to, and much improvement has resulted.

Report of Sanitary Inspector, Mr. H. J. Hughes, Hirdir.

No. of complaints received	37
„ „ inspections of houses or premises	341
„ „ orders given for the sanitary amendment of houses	37
„ „ houses or premises cleansed, repaired, or limewashed	53
„ „ houses disinfected or supplied with disinfectants	29
„ „ house drains repaired, cleansed, or trapped	28
„ „ house drains ventilated	10
„ „ privies and W.C.'s—new provided	18
„ „ privies and W.C.'s—repaired	12
„ „ W.C.'s supplied with water	5
„ „ accumulations of manure and refuse removed	23
„ „ animals removed on account of being nuisances	14
„ „ houses closed as unfit for occupation	1

AETHWY RURAL SANITARY DISTRICT.

Area	36,709 acres.
Population, Census 1891	8,831
" " 1901	8,717
Estimated population, June, 1904	8,680

BIRTH-RATE.—There were registered during the year 196 births, or at the rate of 22·6 per 1,000 of population. In 1903, the birth-rate was 27·4 per 1,000.

DEATH-RATE.—The deaths from all causes numbered 128, or at the rate of 14·7 per 1,000 persons living. Besides these, 7 deaths of persons belonging to Aethwy took place in public institutions elsewhere. If these be added, a corrected death-rate of 15·6 per 1,000 is obtained.

In 1903, the corrected death-rate was 16·5 per 1,000 of population.

ZYMOTIC MORTALITY.—As in 1903, only one death was caused by the principal Zymotic diseases. This was a death due to Diphtheria. The Zymotic Mortality was 0·11 per 1,000 of population, the same rate as in 1903.

INFANTILE MORTALITY.—Of infants under one year of age there were 14 deaths, or at the rate of 71 per 1,000 registered births. In 1903, the Infantile Mortality was 109 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Among persons aged 65 and upwards, there were 61 deaths, or at the rate of 7 per 1,000 of population, as compared with 7·5 per 1,000 in 1903.

DEATH-RATE FROM TUBERCULOSIS.—Eighteen deaths were due to the Tubercular diseases, or at the rate of 2·1 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 1·5 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—These diseases were the cause of 7 deaths, or at the rate of 0·81 per 1,000 of population, as compared with 2 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—Cancer was the cause of 7 deaths, or at the rate of 0·81 per 1,000 of population. In 1903, the death-rate from Cancer was 0·46 per 1,000.

The birth-rate was considerably below the average. The general death-rate was low. The death-rate from Zymotic diseases, Respiratory diseases, and Cancer, and that among infants were on an exceptionally low level.

INFECTIOUS DISEASE.—Twenty-one cases of infectious sickness were notified during the year. These were 12 cases of Scarlet Fever, 4 of Diphtheria, 4 of Erysipelas, and 1 of Enteric Fever.

In 1903, 11 notifications of infectious disease were received.

SANITARY WORK.

WATER SUPPLY.—No new works of water supply were constructed during the year.

SEWERAGE.—Two private sewers, to serve seven houses, have been laid at Llangoed. Their total length is about 70 yards.

HOUSE ACCOMMODATION.—Plans for 9 new houses at Gaerwen Junction, and for 8 houses at Llangoed were approved during the year. All these houses are suitable for workingmen's families.

DAIRIES AND COWSHEDS.—Many of the dairies and cowsheds in the district have been specially visited by the Sanitary Inspector, in order to ascertain their sanitary condition, and to ensure cleanliness, but no register is kept by the Authority, nor have any Regulations under the Dairies Order been adopted.

FACTORY AND WORKSHOP ACT.—The number of workshops on the register is 33. Of these, 16 are dressmaking and tailoring workshops, 5 joiners', 4 shoemakers' workshops, and 9 bakehouses. These have been visited by the Sanitary Inspector four times during the year with good results. In three instances defective floors were found, and in five cases the want of cleanliness. These have been remedied by the occupiers. As regards air space, ventilation, and sanitary conveniences the condition of the workshops is reported to be fairly good.

MATTERS SPECIALLY REPORTED.

Some improvement has been effected at Malltraeth Yard. Several insanitary features, such as absence of privy accommodation, damp earthen floors, and nuisances from keeping animals near dwellings have been remedied. Nothing has been done to the water supply.

Report of Sanitary Inspector, Mr. Edward Jones, Rhydydelyn Fawr, Pentraeth.

No. of complaints	50
„ „ inspections of houses or premises	635
„ „ orders given for the sanitary amendment of houses or premises	72
„ „ houses or premises cleansed, repaired, or whitewashed....	102
„ „ houses disinfected or supplied with disinfectants	22
„ „ house drains repaired, cleansed, or trapped	4
„ „ privies or W.C.'s—new provided	36
„ „ accumulations of manure and refuse removed	8
„ „ animals removed on account of being nuisances	3
„ „ legal proceedings taken	2
„ „ houses closed as unfit for occupation	2

CONWAY RURAL SANITARY DISTRICT.

Area	26,135 acres.
Population, Census 1891	4,770
,, ,, 1901	6,364
Estimated population, June, 1904	6,989

BIRTH-RATE.—The number of births registered during 1904 was 192, being at the rate of 27·5 per 1,000 of population. In 1903, the birth-rate was 27·8 per 1,000.

DEATH-RATE.—There were registered from all causes 98 deaths, or at the rate of 14·0 per 1,000 of population. Besides these, 6 deaths occurred in the Conway Union Workhouse of persons belonging to the district. With the addition of these, the death-rate was 14·9 per 1,000.

In 1903, the corrected death-rate was 13·1 per 1,000.

ZYMOTIC MORTALITY.—Nine of the deaths were due to the principal Zymotic diseases, or at the rate of 1·3 per 1,000 of population. Of these, 3 were caused by Whooping Cough, 2 by Enteric Fever, 2 by Diarrhœa, 1 by Measles, and 1 by Diphtheria.

In 1903, the Zymotic Mortality was 0·59 per 1,000.

INFANTILE MORTALITY.—Among infants under one year of age there were 27 deaths, or at the rate of 141 per 1,000 registered births. With the addition of one death which occurred in the Union Workhouse, the Infantile Mortality becomes 145 per 1,000.

In 1903, the Infantile Mortality was 127 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Among persons at this age-period there were 40 deaths, or at the rate of 5·7 per 1,000 of population. In 1903, the death-rate was 4 per 1,000.

DEATH-RATE FROM TUBERCULOSIS.—Tubercular diseases were the cause of 8 deaths, or at the rate of 1·1 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 1 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—These diseases were the cause of 18 deaths, or at the rate of 2·6 per 1,000 of population. In 1903, the death-rate from these diseases was 1·9 per 1,000.

DEATH-RATE FROM CANCER.—Cancer was the cause of 3 deaths, or at the rate of 0·43 per 1,000 of population. In 1903, the Cancer death-rate was 0·73 per 1,000.

A fairly high birth-rate and a low death-rate have to be recorded for this district. The mortality among infants, aged persons, and from Zymotic and Respiratory diseases has risen to some extent.

INFECTIOUS DISEASE.—There were notified 68 cases of infectious disease, as follows:—Scarlet Fever 63, Diphtheria 3, Enteric Fever 1, Erysipelas 1.

The outbreak of Scarlet Fever was almost entirely confined to the Penrhynside district.

In 1903, 43 cases were notified.

SANITARY WORK.

WATER SUPPLY.—No new water mains have been laid during the year.

The contract to carry out the scheme of the Authority for the supply of water to the higher levels of Llysfaen parish has now been let. The contract price for the work is £6,675. This extensive scheme comprises a pumping station, a six inch rising main 2,800 yards in length, a storage reservoir about 700 feet above ordnance datum, and the laying of four inch and three inch distributing mains of a total length of about 8,000 yards.

SEWERAGE.—No new sewers were laid during the year.

It has been decided not to proceed with the proposed sewerage of Upper Llysfaen before the water scheme is completed.

SCAVENGING.—The removal of house refuse in the parishes of Llysfaen and Penrhyn, and from the populous district of Penybont has

been performed by contract during the year. The total cost to the Authority has been about £160.

HOUSE ACCOMMODATION.—Plans of 11 new cottages were approved during 1904. Of these, 5 were for houses in Llangystenin, 4 at Llysfaen, 1 at Llanbedr, and 1 at Llangelynin. The systematic inspection of the district by the Sanitary Inspector has been continued. Fifteen cottages were found to be dangerously overcrowded, and it is evident that the demand for suitable cottages, at a reasonable rent, is very great. Three houses were closed as unfit for habitation.

SLAUGHTER-HOUSES.—The five slaughter-houses have been periodically inspected and have been found in good order except as regards the receptacles for the removal of refuse.

DAIRIES AND COWSHEDS.—Special attention has been paid by the Sanitary Authority to the 36 Cowsheds and Dairies in the district, and the attention of the occupiers has been drawn to the various defects on their premises. Much improvement in their condition has taken place.

FACTORY AND WORKSHOP ACT.—Nineteen workshops are upon the register. Of these, 13 are Bakehouses, 2 Smithies, 1 Tailors', and 1 Dressmakers' Workshops. They are periodically visited and generally found to be satisfactory. In five instances want of cleanliness was observed, which was remedied by the occupiers after a verbal notice.

DAVIES' ISOLATION HOSPITAL.—The building, formerly known as the Old Telegraph, Llysfaen, which had been equipped as a Smallpox Hospital in 1903, by means of the Davies' Bequest, rendered invaluable service in June, 1904. To it a militiaman, suffering from Smallpox, was removed from among hundreds of men encamped on the Morfa at Conway. The patient made a good recovery, and no further cases occurred. The Steam Disinfector did excellent work at this time and throughout the year, in disinfecting infectious clothing and bedding. Before proceeding with the erection of a hospital for the other infectious diseases upon the site purchased near Croesau, the Authority entered into negotiations with the adjoining Authorities of Conway Borough, and Penmaenmawr, with the view of erecting a joint hospital. It is proposed to obtain a provisional order for the establishment of a Joint Hospital Board, and to erect the hospital on a site within the Borough of Conway.

*Report of Sanitary Inspector, Mr. Levi John, Cert. San. Inst.,
Conway.*

No. of complaints received	8
„ „ inspections of houses or premises	760
„ „ orders given for the sanitary amendment of houses	115
„ „ houses or premises cleansed, repaired, or limewashed	27
„ „ houses disinfected or supplied with disinfectants	44
„ „ house drains repaired, cleansed or trapped	12
„ „ W.C.'s and privies—new provided	5
„ „ W.C.'s and privies—repaired	7
„ „ animals removed on account of being nuisances	16
„ „ legal proceedings taken	2
„ „ houses closed as unfit for habitation	3

GLANCONWAY RURAL SANITARY DISTRICT.

Area	8,768 acres.
Population, Census, 1891	1,544
,, ,, 1901	1,515
Estimated population, June, 1904	1,505

BIRTH-RATE.—There were registered during the year 41 births, or at the rate of 27·2 per 1,000 of population. In 1903, the birth-rate was 31·2 per 1,000.

DEATH-RATE.—From all causes 25 deaths were registered, or at the rate of 16·6 per 1,000 of population. In 1903 the death-rate was 23·2 per 1,000.

ZYMOTIC MORTALITY.—Two deaths were caused by the chief Zymotic diseases, or at the rate of 1·3 per 1,000 of population. One of these was caused by Whooping Cough and one by Diarrhœa. In 1903, the Zymotic mortality was nil.

INFANTILE MORTALITY.—There were 8 deaths among infants under one year of age, or in the proportion of 195 per 1,000 registered births, as compared with 149 per 1,000 births in the previous year.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—There were 7 deaths among persons at this period of life, or at the rate of 4·6 per 1,000 of population. In 1903, the death-rate among aged persons was 9·9 per 1,000.

DEATH-RATE FROM TUBERCULOSIS.—Tubercular Diseases were the cause of 4 deaths, or at the rate of 2·6 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 3·3 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases were the cause of 7 deaths, or at the rate of 4·6 per 1,000 of population, as compared with 1·3 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—As in 1903, and 1902, Cancer was the cause of one death, or at the rate of 0·66 per 1,000 of population.

The birth-rate and death-rate of the year were somewhat under the average of recent years. The mortality among infants was on a high level.

INFECTIOUS DISEASES.—Two cases of Scarlet Fever were notified during the year.

In 1903, three notifications were received.

SANITARY WORK.

No sewers or water mains were laid during the year.

HOUSE ACCOMMODATION.—Five dwelling houses were erected during the year. Six cottages were discovered, during a systematic inspection of the houses of the district by the Sanitary Inspector, to be seriously overcrowded.

SCAVENGING.—The Sanitary Authority have continued the contract system of scavenging the village of Glanconway with Brynrhys and Graig, at a cost of about £35 per annum.

SLAUGHTER-HOUSES.—The two Slaughter-houses have been occasionally inspected, and found to be satisfactory.

COWSHEDS AND DAIRIES.—Special attention is being paid to the 12 cowsheds and dairies in the district. Stricter cleanliness and the periodical limewashing of some of them have been directed.

FACTORY AND WORKSHOP ACT.—Six workshops are now on the register. These are 3 bakehouses, 1 smithy, 1 saddlers' and 1 boot-makers' workshop. Their sanitary condition has been found satisfactory, except in three instances where the defects of uncleanness, and want of drainage were discovered. These defects have been remedied by the occupiers.

*Report of Sanitary Inspector, Mr. Levi John, Cert. San. Inst.,
Conway.*

Total No. of Inspections and Visits made 248

Infectious Disease.

No. of cases inquired into	3
,, of houses disinfected	4

Dwellings.

No. erected	5
No. made fit for habitation	6
„ of cases of overcrowding	6

Drainage.

No. laid or re-laid	4
„ cleansed, trapped, ventilated, &c.	2
„ of new privies and ashpits	3

Scavenging.

No. of privies emptied	22
„ of pan closets emptied	8
„ of ashpits emptied	160

Refuse.

No. of accumulations removed	12
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Dairies.

No. of places in use and inspected	12
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Slaughter-houses.

No. registered or licensed	2
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Animals.

No. of cases causing nuisance	3
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Clerical Work.

No. of letters received	16
„ of letters written	32
„ of informal notices served	15
„ of informal notices complied with	9

YNYSCYNHAIARN URBAN SANITARY DISTRICT.

Area	3,844 acres.
Population, Census 1891	4,959
,, ,, 1901	4,883
Estimated population, June, 1904	4,858

BIRTH-RATE.—There were registered during the twelve months 125 births, or at the rate of 25·7 per 1,000 of population. In 1903, the birth-rate was 23 per 1,000.

DEATH-RATE.—The number of deaths from all causes was 81, or at the rate of 16·7 per 1,000 persons living. In addition to these, three deaths took place in the Union Workhouse of persons belonging to Ynyscynhaiarn. If these be allowed for, a corrected death-rate of 17·3 per 1,000 is obtained.

In 1903, the corrected death-rate was 15·4 per 1,000.

ZYMOTIC MORTALITY.—One death only was due to the principal Zymotics, or at the rate of 0·21 per 1,000 of population. This was a death from Diarrhœa. In 1903, the Zymotic Mortality was 0·62 per 1,000.

INFANTILE MORTALITY.—Among infants under one year of age there were 15 deaths, being in the proportion of 120 per 1,000 registered births. In 1903, the Infantile Mortality was 71 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Of persons at this period of life there were 26 deaths, or at the rate of 5·3 per 1,000 of population. In 1903, the death-rate among aged persons was 4·7 per 1,000.

DEATH-RATE FROM TUBERCULOSIS.—Tubercular diseases were the cause of 16 deaths, or at the rate of 3·3 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 3·9 in the 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases were the cause of 12 deaths, or at the rate of 2·5 per 1,000 of population, as compared with 1·4 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—Five deaths were caused by Cancer, or at the rate of 1 per 1,000 of population. In 1903, the Cancer death-rate was 1·2 per 1,000.

The birth-rate during the year was higher than during the last few years. The death-rate shows some improvement upon the average of the previous ten years. A favourable feature was a low death-rate from Zymotic causes and among infants. The mortality from Tuberculosis and the chief Respiratory diseases was high.

INFECTIOUS DISEASE.—Seven cases of infectious disease were notified. Four were cases of Erysipelas, two of Enteric Fever, and one of Diphtheria.

In 1903, three notifications were received.

PROPOSED HOSPITALS.—Nothing definite has been done towards proceeding with the scheme for the erection of a Joint Hospital for Smallpox in conjunction with the neighbouring Authorities of Festiniog, Deudraeth and Glaslyn.

The proposal to join the neighbouring Authorities in the provision of an Isolation Hospital for the ordinary fevers appears to have been abandoned.

SANITARY WORK.

WATER SUPPLY.—An abundant supply of water of good quality was available throughout the year from the Water Company's mains.

Four houses have been newly supplied with water.

SEWERAGE.—No extensions have been made to the sewerage system.

A new sewer has been planned for the service of one side of Church Street, Tremadoc, but the proposal is objected to by the landowners.

The efforts of the Sanitary Authority to get the owners to remedy various defects at Tremadoc have so far failed. This neglect to carry out the requisitions of the Authority is much to be deplored.

SCAVENGING.—The Sanitary Authority continue the removal of house refuse in a satisfactory manner. The cesspools of several out-lying houses are also cleared by the Council's men. As a rule two men with a horse and cart are sufficient for the work.

HOUSE ACCOMMODATION.—One house has been closed as unfit for occupation.

DAIRIES AND COWSHEDS.—There are now 23 registered Cowkeepers and Dairymen in the district, and in addition to these there are two registered milk sellers. Though generally speaking the cowsheds and dairies have been found upon inspection to be kept in a cleanly state, still some recommendations of the Sanitary Authority have not yet been carried out by the occupiers.

FACTORY AND WORKSHOP ACT.—The number of factories, workshops and workplaces on the register is 41, and comprises the following:—

Milliners and Dressmakers	14
Carpenters	6
Tailors	6
Bakehouses	4
Smiths	3
Carriage builders	3
Bootmaker	1
Hosiery workshop	1
Candlemaker	1
Plumber	1
Painter	1

The sanitary condition of all these premises is reported to be satisfactory.

SHIPPING.—The number of vessels which arrived at Portmadoc during the year was 292. Of these 19 came from foreign parts. In two instances sanitary defects were discovered and remedied while in the harbour.

MATTERS SPECIALLY REPORTED.

Over crowding of a dwelling in Chapel Street has been abated.

To the two common lodging-houses at Tremadoc frequent visits of inspection have been paid with good results.

Report of Sanitary Inspector, Mr. Morgan Thomas, C.E.

No. of complaints received	10
„ „ inspections of houses or premises	681
„ „ orders given for the sanitary amendment of houses or premises	16
„ „ houses or premises cleansed, repaired or whitewashed....	2
„ „ houses disinfected or supplied with disinfectants	10
„ „ house drains repaired, cleansed or trapped	43
„ „ house drains ventilated	6
„ „ W.C.'s—new provided	16
„ „ W.C.'s—repaired	36
„ „ W.C.'s—supplied with water	8
„ „ houses newly supplied with water from the mains	4
„ „ accumulations of manure removed	6

CRICCIETH URBAN SANITARY DISTRICT.

Area	472 acres.
Population, Census 1891	1,410
" " 1901	1,406
Estimated population, June, 1904	1,404

BIRTH-RATE.—There were registered during the year 26 births, or at the rate of 18·6 per 1,000 of population. In 1903, the birth-rate was 17·8 per 1,000.

DEATH-RATE.—The number of deaths from all causes was 28, or at the rate of 19·9 per 1,000. Of these deaths, two were of persons stated to be visitors. On the other hand, one death occurred in the Pwllheli Union Workhouse of a person belonging to Criccieth. If these deaths be taken into consideration, a corrected death-rate of 19·2 per 1,000 is obtained.

In 1903, the corrected death-rate was 17·1 per 1,000.

ZYMOTIC MORTALITY.—As was the case during the preceding four years, no deaths were due to the seven principal Zymotics.

INFANTILE MORTALITY.—Among infants under one year of age there was only one death, or at the rate of 38 per 1,000 registered births. In 1903, the Infantile Mortality was 80 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Eleven of the deaths were of persons aged 65 and upwards, being at the rate of 7·8 per 1,000 of population. One of these aged persons was an old lady, stated to be 100 years old. In 1903, the death-rate at the age of 65 and upwards was 11·4 per 1,000.

DEATH-RATE FROM TUBERCULOSIS.—Nine of the deaths were due to Tubercular diseases, or at the rate of 6·4 per 1,000 of population, as compared with 3·5 per 1,000 in 1903.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—To the chief Lung diseases were ascribed 3 deaths, or at the rate of 2·1 per 1,000

of population. In 1903, the deaths from these diseases were at the rate of 2·9 per 1,000.

DEATH-RATE FROM CANCER.—Two deaths were due to Cancer, or at the rate of 1·4 per 1,000 of population. In 1903, the death-rate from Cancer was 0·7 per 1,000.

A low birth-rate prevailed during the year.

The death-rate from all causes was considerably above the average of the previous ten years. Though the mortality among infants was very low, and there was no mortality from Zymotic causes, the high death-rate among aged persons, and from Tuberculosis more than counterbalanced the other satisfactory features.

INFECTIOUS DISEASE.—Two notifications of infectious disease were received. One was of a case of Scarlet Fever, and the other of Erysipelas.

In 1903, no infectious illness was notified.

SANITARY WORK.

WATER SUPPLY.—The water supply during the year proved ample except to some of the high lying houses near the reservoir. No new mains were laid. Five new houses were connected with existing mains.

SEWERAGE.—The town sewers have been maintained in good order and the necessary flushing of the various sections arranged for. A length of the oldest sewer was relaid with an improved gradient. A defective branch sewer at Antipodes Terrace was also relaid. In order to prevent the sur-charging of the sewers at times of floods, several surface water gulleys and drains have been diverted from the sewers.

SCAVENGING.—For the five months, April to October, house refuse is removed twice a week from some houses, once a week from others. During the colder months weekly and fortnightly removal of refuse is in force.

HOUSE ACCOMMODATION.—Attention has been paid by the Sanitary Authority to cases of overcrowding in some of the older cottages, and

some improvement has resulted. A special committee has devoted much time to the consideration of plans and estimates prepared by the Surveyor for a number of workmen's dwellings, but the Council have not ventured to proceed further with this improvement at present.

FACTORY AND WORKSHOP ACT.—This Act has been carried out by the Authority. In the workshops of the town few hands are employed, and the cubic space, ventilation, cleanliness, and other conditions have been found satisfactory. There are no factories or underground bakehouses.

DAIRIES AND COWSHEDS.—All cowsheds and dairies were visited by the Sanitary Inspector during the year and their condition found to be satisfactory.

Report of Sanitary Inspector, Mr. Morris Williams.

No. of complaints received	35
„ „ inspections of houses or premises	455
„ „ orders for the sanitary amendment of houses	34
„ „ houses or premises cleansed, repaired or limewashed....	2
„ „ houses disinfected or supplied with disinfectants	2
„ „ house drains repaired, cleansed, or trapped	11
„ „ house drains ventilated	2
„ „ W.C.'s—new provided	13
„ „ W.C.'s—repaired	3
„ „ W.C.'s—supplied with water	12
„ „ accumulations of manure and refuse removed	7

PWLLHELI URBAN SANITARY DISTRICT.

Area	1,096 acres.
Population, Census 1891	3,231
,, ,, 1901	3,675
Estimated population, June, 1904	3,832

BIRTH-RATE.—There were registered during the twelve months 89 births, or at the rate of 23·2 per 1,000 of population. In 1903, the birth-rate was 22·5 per 1,000.

DEATH-RATE.—The number of deaths of residents registered during the year was 66, or at the rate of 17·2 per 1,000 persons living. Besides these, 4 deaths of persons from outside the Pwllheli district occurred in the Union Workhouse. With the addition of these, the gross death-rate was 18·3 per 1,000.

In 1903, the death-rate among residents was 15·9 per 1,000, and the gross death-rate 16·6 per 1,000.

ZYMOTIC MORTALITY.—No deaths were caused by the seven principal Zymotics.

In 1903, the Zymotic Mortality was 0·53 per 1,000.

INFANTILE MORTALITY.—Among infants under one year of age there were 7 deaths, or in the proportion of 79 per 1,000 registered births. In 1903, the Infantile Mortality was 59 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Among persons at this age-period there were 23 deaths, or at the rate of 6 per 1,000 of population. In 1903, the death-rate among aged persons was 7·7 per 1,000.

DEATH-RATE FROM TUBERCULOSIS.—Tubercular diseases were the cause of 13 deaths, or at the rate of 3·4 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 1·1 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—To these diseases were due 8 deaths, or at the rate of 2·1 per 1,000 of population, as compared with 1·1 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—Cancer was the cause of seven deaths, or at the rate of 1·8 per 1,000 of population. In 1903, the death-rate from Cancer was 2·9 per 1,000.

The birth-rate during 1904 was below the average of the previous ten years. In the death-rate an improvement has taken place. The absence of any Zymotic mortality, and the low death-rate among infants are noteworthy features. The death-rate from Tuberculosis was high.

INFECTIOUS DISEASE.—Six cases of Scarlet Fever, and one of Enteric Fever, were notified during the year.

In 1893, seven infectious cases were notified.

SANITARY WORK.

WATER SUPPLY.—An ample supply of water was available throughout the year from the Council's mains. Twenty-seven houses were newly supplied with water and a considerable number were provided with new service pipes.

No extension of the mains was carried out.

SEWERAGE.—In connection with the Harbour Works, a noteworthy improvement to the sewerage system of the town has been effected through the laying of a new fifteen inch cast iron sewer, 550 feet in length. This new sewer serves the South Beach district, and replaces a defective nine inch sewer.

The Sanitary Authority have instructed their Engineer to prepare plans for a new scheme of sewerage, to provide for the drainage of the buildings and premises on the land, which will be reclaimed by the Harbour Works, and also for the deviation of a large portion of the sewage of the old town, thus relieving the present system. By this proposed sewer a part of the town at present not connected to the main sewer will be drained.

SCAVENGING.—As in recent years, the house refuse of the town is removed daily to a field about half a mile from the town, and sold for agricultural purposes.

DAIRIES AND COWSHEDS.—All the 23 cowsheds in the district were visited by the Sanitary Inspector during the year, and with a few exceptions were found in a fair state of sanitation.

PUBLIC SLAUGHTER-HOUSE.—The number of animals slaughtered during the year in this useful institution was 4,900, comprising 290 head of cattle, 3,760 sheep, 63 pigs, and 219 calves. The fees received amounted to £83, and the expenditure, including repayment of loans, to £117.

Plans for additional lairage, and for improvements in the present cooling chamber have been approved by the Council, and the work is to be commenced at an early date.

HOUSE ACCOMMODATION.—During the year 20 new houses were completed, and 6 are in course of erection. Plans for 4 new houses were approved.

PUBLIC CEMETERY.—Owing to the existing burial ground being nearly full, the Authority have purchased $3\frac{3}{4}$ acres of adjoining land, and purpose laying out part of the new site during the present year.

FACTORY AND WORKSHOP ACT.—There are now on the register 69 workshops, comprising 11 bakehouses, 3 barbers', 6 blacksmiths', 4 bootmakers' and cloggers', 2 coachbuilders' and wheelwrights', 1 curriers', 6 dressmakers' and milliners', 2 hosiery, 1 iron foundry, 9 joiners' and cabinetmakers', 1 mineral water works, 3 printers', 3 joiners', 2 saddlers', 1 saw mill, 2 stone cutters', 2 tinmen's, 1 tanyard, 5 tailors', 1 woollen factory, 3 watchmakers' workshops. In most respects their sanitary condition, as regards cleanliness, air space, ventilation, drainage of wet floors, was found satisfactory. As regards sanitary conveniences, about twenty workshops have no special provision, but as they are men's workshops, the only course would appear to be for the owners or occupiers to provide the necessary accommodation voluntarily.

There are no underground bakehouses.

The eleven bakehouses have been found in sanitary condition, with the exception of one, the proprietor of which has promised to rectify the defects forthwith.

Report of Sanitary Inspector, Mr. J. Cunningham.

No. of complaints received	42
„ „ inspections of houses or premises	250
„ „ orders given for the sanitary amendment of houses	28
„ „ houses disinfected or supplied with disinfectants	6
„ „ house drains repaired, cleansed or trapped	46
„ „ house drains ventilated	32
„ „ privies and W.C.'s—new provided	25
„ „ privies and W.C.'s—repaired	40
„ „ W.C.'s supplied with water	57
„ „ accumulations of manure and refuse removed	54
„ „ animals removed on account of being nuisances	1

CARNARVON URBAN SANITARY DISTRICT.

Area	2,216 acres.
Population, Census 1891	9,804
,, ,, 1901	9,760
Estimated population, June, 1904	9,745

BIRTH-RATE.—The number of births registered during the twelve months was 224, or at the rate of 23·0 per 1,000 of population. In 1903, the birth-rate was 23·1 per 1,000.

DEATH-RATE.—There were registered from all causes 199 deaths, or at the rate of 20·4 per 1,000 of population. Of these, 13 were of persons belonging to other districts who died in the public institutions of the town. On the other hand, three persons belonging to Carnarvon died in Llanrwst Workhouse, Wigan and Liverpool Hospitals. If these be taken into account, a corrected death-rate of 19·4 per 1,000 is obtained.

In 1903, the gross death-rate was 18·3 per 1,000, and the corrected death-rate 17·4 per 1,000.

ZYMOTIC MORTALITY.—The principal Zymotic diseases were the cause of 7 deaths, or at the rate of 0·72 per 1,000. Of these, 2 were due to Scarlet Fever, 2 to Diarrhœa, 1 to Whooping Cough, 1 to Diphtheria, and 1 to Enteric Fever. In 1903, the Zymotic Mortality was 0·51 per 1,000.

INFANTILE MORTALITY.—Of infants under one year of age there were 32 deaths, or at the rate of 143 per 1,000 registered births. In 1903, the Infantile Mortality was 142 per 1,000.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—At this period of life, there were 74 deaths, or at the rate of 7·6 per 1,000 of population. In 1903, the death-rate among aged persons was 5·7 per 1,000.

DEATH-RATE FROM TUBERCULOSIS.—Tubercular diseases were the cause of 27 deaths, or at the rate of 2·8 per 1,000 of population. In 1903 the death-rate from Tuberculosis was 3 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—These diseases occasioned 19 deaths, or at the rate of 1·9 per 1,000 of population, as compared with 2·6 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—To Cancer were due 13 deaths, or at the rate of 1·3 per 1,000 of population. In 1903, the death-rate from Cancer was 0·92 per 1,000.

The birth-rate was below the average of the previous ten years. In the general death-rate, a rise has taken place. The mortality among aged persons and from Tuberculosis was high.

INFECTIOUS DISEASE.—There were notified during the year 89 infectious cases, as follows:—

Scarlet Fever	74
Diphtheria	7
Erysipelas	7
Enteric Fever	1

Of these, there were treated in the Borough Hospital 60 patients suffering from Scarlet Fever, 1 from Diphtheria, and 1 from Typhoid.

SANITARY WORK.

WATER SUPPLY.—The town was amply supplied with water throughout the year. A large number of houses were provided with new service pipes. No new mains were laid.

SEWERAGE.—The sewerage system of the town has been maintained in good condition. The regular flushing of the various sections has assisted greatly in this work. Some improvements have been effected in connection with the manholes and other means of inspection.

The drains of several hotels, public and private houses were improved. Where the owners were in default, the necessary work was executed by the Authority.

HOUSE REFUSE.—The house and street refuse was effectually and regularly dealt with throughout the year. As in recent years, daily removal of refuse to the town tip by the Corporation workmen was in vogue.

HOUSE ACCOMMODATION.—Eight houses were erected, but none of these were suitable for workingmen's families.

For the purpose of improving the insanitary area of Tan'rallt, and for widening Vinegar Hill a loan of £2,700 has been applied for and has received the sanction of the Local Government Board.

PUBLIC SLAUGHTER-HOUSE.—Excellent service to the community has been rendered at the public slaughter-house. During the year 14,481 animals were slaughtered. This number comprised 1,276 head of cattle, 717 calves, 10,873 sheep, and 1,615 pigs. The carcase of one cow was found to be affected by Tuberculosis, and destroyed, as was also the carcase of a pig which had died in the fasting-pen, and yet was dressed for sale. In the latter case the butcher was fined £5 and costs.

Various improvements to the structure of the Public Slaughter-house have been effected.

CATTLE MARKETS.—As required by the Board of Agriculture, the pig market has been paved with setts, and the site on which fairs are held is disinfected and cleansed after each fair.

DAIRIES AND COWSHEDS.—The 28 cowsheds in the borough have been inspected during the year, and found to be kept in a better condition of sanitation. One insanitary cowshed has been abolished and a new one erected.

PUBLIC BATH.—An open air sea-water bath is being constructed on the Aber foreshore, at a cost of £2,675, and is to be completed by the coming season.

FACTORY AND WORKSHOP ACT.—The 116 workshops on the register comprise the following:—

Bakehouses	22
Dressmakers' and Milliners' workshops	24
Joiners' and Cabinetmakers' workshops	13
Bootmakers' and Cloggers' workshops	8
Barbers' workshops	8
Tinmen's workshops	7
Tailors' workshops	7
Blacksmiths' workshops	6
Coachbuilders' workshops	5
Watchmakers' workshops	3

Bookbinders' workshops	2
Saddlers' workshops	2
Cycle repairers' workshops	2
Sugar boilers' workshop	1
Coopers' workshop	1
Sailmakers' workshop	1
Printers' workshop	1
Fellmongers' workshop	1
Gutscrapers' workshop	1

These workshops are periodically inspected. In 3 of them defective drains and W.C.'s were found, in 2 wet floors, and in 6 want of cleanliness. These defects were remedied after verbal notices to the occupiers.

Of the bakehouses, 3 are underground. These were specially reported upon during the year. Their occupiers have been granted the necessary certificates after complying with the notices of the Sanitary Authority to remedy certain defects.

*Report of Sanitary Inspector, Mr. Evan Roberts, Cert. San. Inst.
and R.P.C.*

No. of complaints received	116
„ „ inspections	2064
„ „ orders for sanitary amendments	390
„ „ houses cleansed and repaired	36
„ „ house drains repaired, trapped, etc.	160
„ „ W.C.'s repaired	285
„ „ accumulations removed	46
„ „ smoke tests or chemical tests	28
„ „ seizures of diseased meat	1
„ „ legal proceedings	2
„ „ cowsheds closed as unfit	1
„ „ houses disinfected	80

MENAI BRIDGE URBAN SANITARY DISTRICT.

Area	825 acres.
Population, Census 1891	1,675
,, ,, 1901	1,700
Estimated population, June, 1904	1,708

BIRTH-RATE.—There were registered during the year 33 births, being at the rate of 19·3 per 1,000 of population. In 1903, the birth-rate was 24·1 per 1,000.

DEATH-RATE.—The number of deaths from all causes was 27, or at the rate of 15·8 per 1,000 of population. In addition to these, the body of a resident of Menai Bridge was found at Bangor. If this death be added a corrected death-rate of 16·4 per 1,000 is obtained.

In 1903 the corrected death-rate was 17·6 per 1,000.

ZYMOTIC MORTALITY.—As in the two preceding years no deaths were caused by the principal Zymotic diseases.

INFANTILE MORTALITY.—Among infants under one year of age there were 4 deaths, or in the proportion of 121 per 1,000 registered births.

In 1903, the Infantile Mortality was 73 per 1,000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Fourteen deaths were of persons aged 65 and upwards, or at the rate of 8·2 per 1,000 of population, as compared with 5·3 per 1,000 in 1903.

DEATH-RATE FROM TUBERCULOSIS.—To Tubercular diseases four deaths were due, or at the rate of 2·3 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 2·4 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—These diseases were the cause of one death, or at the rate of 0·58 per 1,000 of population, as compared with 1·2 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—Five deaths were due to Cancer, or at the rate of 2·9 per 1,000 of population. In 1903, the Cancer death-rate was 1·2 per 1,000.

Both the birth-rate and the death-rate were much below the average of the previous ten years. The continued absence of mortality from Zymotic causes is worthy of note. A high death-rate among aged persons and from Cancer took place.

INFECTIOUS DISEASE.—Four cases of infectious illness were notified, two being cases of Scarlet Fever, one of Enteric Fever, and one of Erysipelas.

SANITARY WORK.

WATER SUPPLY.—The water supply has been sufficient, excepting during periods of drought, during which it has to be husbanded, by cutting it off from the town during the night and allowing the reservoir to fill.

SEWERAGE.—The system of sewers has been maintained in good order. Fortnightly flushing of the main sewers is in vogue.

SCAVENGING.—The house refuse of the town is removed by a contractor at weekly intervals.

SLAUGHTER-HOUSES AND COWSHEDS.—The slaughter-houses and cowsheds have been found in a sanitary condition.

HOUSE ACCOMMODATION.—Plans for four new houses were approved during the year.

FACTORY AND WORKSHOP ACT.—The seven workshops in the district (including four bakehouses) are reported to be kept in a satisfactory condition.

Report of Sanitary Inspector, Mr. William Owen, Assoc. San. Inst.

Appointed August 22nd, 1904.

No. of complaints received	3
„ „ inspections of houses or premises	41

„	„	orders given for the sanitary amendment of houses	15
„	„	houses disinfected or supplied with disinfectants	2
„	„	house drains repaired, cleansed or trapped	6
„	„	house drains ventilated	2
„	„	privies and W.C.'s—new provided	2
„	„	privies and W.C.'s—repaired	4
„	„	accumulations of manure and refuse removed	1
„	„	animals removed on account of being nuisances	7

BANGOR URBAN SANITARY DISTRICT.

Area	1,209 acres.
Population, Census 1891	9,892
,, ,, 1901	11,269
Estimated population, June, 1904	11,756

BIRTH-RATE.—There were registered during the twelve months 270 births, or at the rate of 23 per 1,000 of population. In 1903, the birth-rate was 25·6 per 1,000.

DEATH-RATE.—The number of deaths registered from all causes was 189, or at the rate of 16·1 per 1,000 of population. Of these, 18 were of persons from outside districts who died in the public institutions of the town. Two other deaths were those of non-residents who were found drowned in the Straits. Allowing for these 20 deaths, a corrected death-rate of 14·4 per 1,000 is obtained.

In 1903, the gross death-rate was 15 per 1,000, and the corrected death-rate 13·9 per 1,000.

ZYMOTIC MORTALITY.—The chief Zymotic diseases were the cause of 15 deaths, or at the rate of 1·3 per 1,000 of population. Of these, 8 were caused by Measles, 4 by Whooping Cough, 1 by Diphtheria, 1 by Enteric Fever, and 1 by Diarrhoea.

In 1903, the Zymotic Mortality was 0·60 per 1,000.

INFANTILE MORTALITY.—Among infants under one year of age there were 39 deaths, or at the rate of 144 per 1,000 registered births. In 1903, the Infantile Mortality was 131 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—There were 55 deaths among persons aged 65 and upwards, or at the rate of 4·7 per 1,000 of population. In 1903, the death-rate among aged persons was 4·5 per 1,000.

DEATH-RATE FROM TUBERCULOSIS.—Tubercular diseases were the cause of 17 deaths, or at the rate of 1·4 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 1·6 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—To these diseases were due 16 deaths, or at the rate of 1·3 per 1,000 of population, as compared with 0·60 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—Four deaths were ascribed to Cancer, or at the rate of 0·34 per 1,000 of population. In 1903, the death-rate from Cancer was 0·43 per 1,000.

The birth-rate of the year was 5 per 1,000 below the average of the previous ten years, and the death-rate among residents was 4·4 per 1,000 lower. A considerable improvement has taken place in the death-rate from Tuberculosis, Respiratory Diseases, and Cancer.

INFECTIOUS DISEASE.—Eighty-three cases of infectious disease were notified during the year. These comprised:—

Scarlet Fever	63
Erysipelas	12
Diphtheria	7
Enteric Fever	1

Of these, 55 cases of Scarlet Fever and 5 of Diphtheria were treated in the Isolation Hospital. Besides these cases from the borough, 9 patients from the districts of Penmaenmawr, Llanfairfechan, Ogwen, and Gwyrfaï were removed to the Borough Isolation Hospital. Of these 69 cases, only one proved fatal.

In 1903, 88 cases of infectious illness were notified.

TUBERCULOSIS.—The Authority have decided to disinfect all houses and the infected bedding and clothing where deaths from Tuberculosis have occurred. A Special Return of each death is forwarded by the Registrar to the Sanitary Inspector, so that disinfection may take place immediately after the funeral.

SANITARY WORK.

WATER SUPPLY.—To all parts of the town an abundant supply of excellent water has been available throughout the year.

Four hundred yards of new mains, three inches in diameter, were laid along Deiniol Road.

A new four inch main has been laid along Carnarvon Road for a distance of 355 yards, to replace the existing three inch main.

SEWERAGE.—A new 18 inch main sewer, 436 yards in length, has been constructed from Glan'rafon to Farrar Road, and intercepts a large portion of the sewage from Upper Bangor.

In addition, 150 yards of old 18 inch earthenware pipes have been taken up and replaced by 18 inch cast iron pipes.

REFUSE DISPOSAL.—The house refuse of the town continues to be removed by contract to the Refuse Destructor, and is there incinerated.

The system is found to work satisfactory. The cost is £520 per year.

HOUSE ACCOMMODATION.—No additional houses were completed during 1904, but building operations have recommenced, and at the present time (January) there are 20 houses in course of erection.

Competitive Drawings were invited for the laying out of the Sackville Road Site, and 27 sets of drawings received. The design by "Old Hand" placing 43 houses on the site, and the design by "Doric," placing 37 houses, were considered of equal merit, and the prizes divided equally between them. The Committee have not yet decided to proceed with the erection of the houses.

COWSHEDS.—The cowsheds in the Borough, and some in the adjoining district, have been regularly visited by the Veterinary Inspector during the year, with the view of ascertaining their condition, and the health of the cows. Attention has also been paid to the cleanliness or otherwise of the persons engaged in milking.

Where insanitary conditions have been reported, the reports were referred each month to the Sanitary Inspector. The cowsheds within the Borough were visited by him, and where necessary, special notices were served upon the occupier.

SLAUGHTER-HOUSES.—The Veterinary Inspector has regularly visited the Slaughter-houses of the town, and upon his advice 9 carcasses were destroyed in the Refuse Destructor.

DISEASED MEAT.—Two seizures of unsound meat were made by the Sanitary Inspector. Prosecutions of the offending parties were made, and in one instance a penalty of £1 and costs was inflicted.

FACTORY AND WORKSHOP ACT.—Many of these have been inspected during the year, and a systematic inspection, under the Act, is now in progress.

Report of Sanitary Inspector, Mr. W. H. Worrall, Cert. San. Inst.

No. of complaints received	128
„ „ inspections of houses or premises	2175
„ „ notices and letters sent <i>re</i> nuisances	880
„ „ premises cleansed, repaired or whitewashed	190
„ „ houses disinfected or supplied with disinfectants	117
„ „ house drains cleansed, repaired, or whitewashed	160
„ „ house drains ventilated	13
„ „ new W.C.'s provided	8
„ „ W.C.'s repaired or supplied with water	186
„ „ accumulations of manure removed	19
„ „ animals removed on account of being nuisances	4
„ „ legal proceedings taken	2
„ „ miscellaneous	35

BETHESDA URBAN SANITARY DISTRICT.

Area	893 acres.
Population, Census 1891	5,799
,, ,, 1901	5,281
Estimated population, June, 1904....	5,122

BIRTH-RATE.—There were registered during the year 128 births, or at the rate of 25 per 1,000 of population. In 1903, the birth-rate was 22·8 per 1,000.

DEATH-RATE.—The number of deaths registered from all causes was 112, or at the rate of 21·9 per 1,000 persons living. In addition to these, two deaths of persons belonging to Bethesda took place in the Bangor Union Workhouse, and one in a Liverpool institution. If these be added, a corrected death-rate of 22·5 per 1,000 is obtained.

In 1903, the corrected death-rate was 17·2 per 1,000.

ZYMOTIC MORTALITY.—To the principal Zymotic diseases were due 2 deaths, or at the rate of 0·39 per 1,000 of population. One of these was due to Scarlet Fever, and the other to Enteric Fever. In 1903, the Zymotic Mortality was 0·58 per 1,000.

INFANTILE MORTALITY.—Of infants under one year of age there were 17 deaths, or at the rate of 133 per 1,000 registered births. In 1903, the Infantile Mortality was 119 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Of persons at this age-period there were 43 deaths, or at the rate of 8·4 per 1,000 of population, as compared with 6·4 per 1,000 in 1903.

DEATH-RATE FROM TUBERCULOSIS.—Seventeen deaths were due to Tubercular disease, or at the rate of 3·3 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 2·1 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases caused 9 deaths, or at the rate of 1·7 per 1,000 of population, as compared with 1·5 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—Thirteen deaths were due to Cancer, or at the rate of 2·5 per 1,000 of population. In 1903, the death-rate from Cancer was 1·7 per 1,000.

The birth-rate was 5 per 1,000 below the average of the previous ten years, and the general death-rate was slightly below the average. The low Zymotic Mortality was a favourable feature. The mortality among aged persons, and that from Tuberculosis and Cancer were on a high level.

INFECTIOUS DISEASE.—During the twelve months, 33 notifications of infectious disease were received. These were:—Scarlet Fever 24, Enteric Fever 5, Diphtheria 2, Membranous Croup 1, Puerperal Fever 1.

In 1903, 50 cases of infectious disease were notified.

SANITARY WORK.

WATER SUPPLY.—An ample supply of water has been available from the Council's mains in all populous parts of the district. No new mains were laid and no houses were newly supplied with water.

SEWERAGE.—The system of sewers has been maintained in fairly good condition.

SCAVENGING.—The removal of house refuse continues to be left in the hands of the occupiers. The closely built on parts of the district, where only small gardens or back yards are available for the storage of refuse, suffer keenly from the lack of some system of regular removal of refuse.

THE COWSHEDS AND SLAUGHTER-HOUSES have been occasionally inspected. Nothing has been done in the direction of providing a public slaughter-house.

FACTORY AND WORKSHOP ACT.—The number of workshops on the register is 34, in addition to 3 factories. To these work places 9 visits were paid. In two instances want of cleanliness was observed. With these exceptions the sanitary condition was found satisfactory.

Report of Sanitary Inspector, Mr. H. H. Davies.

No. of complaints received	35
„ „ inspections of houses or premises	209
„ „ orders given for the sanitary amendment of houses	28
„ „ houses or premises cleansed, repaired or whitewashed	33
„ „ houses disinfected or supplied with disinfectants	37
„ „ house drains repaired, cleansed or trapped	60
„ „ house drains ventilated	2
„ „ privies and W.C.'s—new provided	3
„ „ privies and W.C.'s—repaired	7
„ „ W.C.'s supplied with water	9
„ „ accumulations of manure and refuse removed	5
„ „ animals removed in consequence of being nuisances	4

LLANFAIRFECHAN URBAN SANITARY DISTRICT.

Area	4,447 acres.
Population, Census 1891	2,407
" " 1901	2,769
Estimated population, June, 1904	2,898

BIRTH-RATE.—There were registered during the year 90 births, or at the rate of 31 per 1,000 of population. In 1903, the birth-rate was 26 per 1,000.

DEATH-RATE.—Sixty deaths were registered from all causes, or at the rate of 20·7 per 1,000 of population. Besides these, one death took place in the Bangor Infirmary of a person belonging to Llanfairfechan. On the other hand, 6 of the deaths in Llanfairfechan were of persons who were visitors to the place. If these are allowed for a corrected death-rate of 19 per 1,000 is obtained.

In 1903, the gross death-rate was 19·9 per 1,000, and the corrected death-rate 18·2 per 1,000.

ZYMOTIC MORTALITY.—Three deaths were caused by the chief Zymotic diseases, or at the rate of 1 per 1,000 of population. Two of these deaths were due to Diarrhœa and one to Diphtheria.

In 1903, the Zymotic Mortality was 0·70 per 1,000.

INFANTILE MORTALITY.—Among infants under one year of age, there were 10 deaths, or in the proportion of 111 per 1,000 registered births. In 1903, the Infantile Mortality was 230 per 1,000 registered births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—At this period of life there were 20 deaths, or at the rate of 6·9 per 1,000 of population. In 1903, the death-rate among aged persons was 6·6 per 1,000.

DEATH-RATE FROM TUBERCULOSIS.—Tubercular diseases were the cause of 10 deaths, or at the rate of 3·4 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 3·1 per 1,000

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—These diseases were the cause of 10 deaths, or at the rate of 3·4 per 1,000 of population, as compared with 5·2 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—Cancer was the cause of 3 deaths, or at the rate of 1 per 1,000 of population. In 1903, the death-rate from Cancer was 0·70 per 1,000.

The birth-rate of the year was much higher than during any one of the last eleven years. The general death-rate was considerably above the average. Though the mortality among infants was low, the death-rate from Tubercular diseases and among aged persons was on a higher level than usual.

INFECTIOUS DISEASE.—Ten cases of infectious disease were notified during the year. Six were cases of Diphtheria, three of Erysipelas, and one of Scarlet Fever.

The case of Scarlet Fever was that of a visitor and was isolated in the Bangor Isolation Hospital.

In 1903, 47 notifications of infectious illness were received.

SANITARY WORK.

WATER SUPPLY.—An ample supply of excellent upland water has been available throughout the year from the Council's mains.

No new mains have been laid.

Three houses were newly supplied with water.

SEWERAGE.—The sewerage system has been kept in good order. The pumping station and sewage ejector have done their work well.

Two houses were connected with the sewers.

SCAVENGING.—Weekly removal of house refuse by the Authority's men has been in vogue throughout the year. The cost of removal and disposal has been about £99.

SLAUGHTER-HOUSES.—The three private slaughter-houses have been found in fair sanitary condition.

COWSHEDS AND DAIRIES.—There are now 16 cowsheds and dairies on the register. Upon the whole, they are kept in fairly good condition but some of them require a few alterations.

In one instance plans for a new dairy have been submitted to and approved by the Authority.

A committee has been appointed to consider the question of adopting new regulations as regards dairies and cowsheds.

FACTORY AND WORKSHOP ACT.—There are 7 bakehouses and 24 other workshops upon the register. 31 visits of inspection were paid to them during the year. Their condition, as regards air space, ventilation, cleanliness, and sanitary conveniences was found satisfactory.

Report of Sanitary Inspector, Mr. Thomas Hughes.

No. of complaints received	20
„ „ inspections of houses or premises	146
„ „ orders given for the sanitary amendment of houses	68
„ „ houses or premises cleansed, repaired or whitewashed	8
„ „ houses disinfected or supplied with disinfectants	7
„ „ house drains repaired, cleansed or trapped	22
„ „ privies and W.C.'s—new provided	4
„ „ privies and W.C.'s—repaired	29
„ „ W.C.'s provided with water	2
„ „ accumulations of manure or refuse removed	448

PENMAENMAWR URBAN SANITARY DISTRICT.

Area	3,818 acres.
Population Census, 1891	2,710
,, ,, 1901	3,503
Estimated population, June, 1904	3,807

BIRTH-RATE.—The number of birth registered during the year was 107, or at the rate of 28·1 per 1,000 of population. In 1903, the birth-rate was 23·4 per 1,000.

DEATH-RATE.—There were registered from all causes 48 deaths, or at the rate of 12·6 per 1,000 persons living. Of these, 9 were deaths of non-residents, while on the other hand, one death of a person belonging to the district took place in the Conway Union Workhouse. Taking these into consideration, a corrected death-rate of 10·5 per 1,000 is obtained.

In 1903, the gross death-rate was 14·2 per 1,000, and the corrected death-rate 13·5 per 1,000.

ZYMOTIC MORTALITY.—By the principal Zymotic diseases no deaths were occasioned during the year.

In 1903, the Zymotic Mortality was 0·54 per 1,000.

INFANTILE MORTALITY.—Among infants under one year of age there were 15 deaths, or in the proportion of 140 per 1,000 registered births. In 1903, the Infantile Mortality was 103 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Among persons aged 65 and upwards there were 8 deaths, or at the rate of 2·1 per 1,000 of population, as compared with 4·3 per 1,000 in 1903.

DEATH-RATE FROM TUBERCULOSIS.—To Tubercular diseases were due 11 deaths, or at the rate of 2·9 per 1,000 of population. Deducting visitors, a corrected death-rate of 1·8 per 1,000 is obtained. In 1903, the death-rate from Tuberculosis was 2·1 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Respiratory diseases were the cause of 5 deaths, or at the rate of 1·3 per 1,000 of population, as compared with 1·9 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—Cancer was the cause of 3 deaths, or at the rate of 0·78 per 1,000 of population. In 1903, the Cancer death-rate was 1 per 1,000.

Comparing these statistics with those of the previous ten years, we find that the birth-rate was above, and the general death-rate considerably below the average. Improvement has taken place in the death-rate among aged persons and infants, also from Respiratory diseases and Cancer. The death-rate from Tuberculosis was above the average, owing to several deaths of non-residents. The absence of any Zymotic Mortality is worthy of mention.

INFECTIOUS DISEASE.—Seven cases of infectious sickness were notified during the year. Of these, six were cases of Scarlet Fever and one of Erysipelas. Three of the Scarlet Fever patients were removed to the Bangor Isolation Hospital.

In 1902, no infectious case was notified.

SANITARY WORK.

WATER SUPPLY.—An abundant supply of pure water was provided throughout the year by the Council's water mains.

SEWERAGE.—The sewerage systems were regularly flushed, frequently inspected, and maintained in excellent condition. Special attention was paid to the outfall sewers, which continue to satisfactorily discharge the sewage of the district in tidal currents.

SCAVENGING.—The Authority have continued the weekly removal of house refuse with a minimum of offence.

HOUSE ACCOMMODATION.—Over 20 new houses suitable for workmen's families were erected during the year. Ten others are now being built.

The Bakehouses, Slaughter-houses, Cowsheds, and Dairies are receiving the special attention of the Authority.

FACTORY AND WORKSHOP ACT.—The number of registered workshops is 39. During the year 39 visits of inspection have been paid. In 21 instances various defects were discovered, most of which were defects in cleanliness. In nearly all cases the defects were at once

remedied by the occupiers. Six underground bakehouses have been granted certificates by the Authority.

Report of Sanitary Inspector, Mr. R. J. Hughes, Cert. San. Inst.

No. of complaints received	16
„ „ inspections of houses or premises	53
„ „ orders given for the sanitary amendment of houses	32
„ „ houses or premises cleansed, repaired or limewashed	30
„ „ houses disinfected or supplied with disinfectants	7
„ „ house drains repaired, cleansed or trapped	26
„ „ new W.C.'s provided	10
„ „ animals removed on account of being nuisances	1

CONWAY URBAN SANITARY DISTRICT.

Area	....	....	....	....	....	3,450 acres.
Population, Census 1891	....	....	....	....	....	3,442
„	„	1901	....	....	....	4,681
Estimated population, June, 1904	....	....	....	....	....	5,173

BIRTH-RATE.—There were registered during the year 116 births, or at the rate of 22·4 per 1,000 of population. In 1903, the birth-rate was 22·1 per 1,000.

DEATH-RATE.—The number of deaths registered from all causes was 74, or at the rate of 14·3 per 1,000. Of these, 8 were of persons from outside districts who died in the Union Workhouse, and 6 were of other non-residents. On the other hand, 3 persons belonging to Conway died in public institutions outside the town. If these 17 deaths are taken into consideration a corrected death-rate of 12·2 per 1,000 is obtained.

In 1903, the gross death-rate was 14·6 per 1,000, and the corrected death-rate 12 per 1,000.

ZYMOTIC MORTALITY.—Five deaths were caused by the principal Zymotic diseases, or at the rate of 0·96 per 1,000 of population. Of these, 4 were due to Scarlet Fever and 1 to Measles.

In 1903, the Zymotic Mortality was 0·39 per 1,000.

INFANTILE MORTALITY.—Of infants under one year of age there were 9 deaths, or at the rate of 78 per 1,000 registered births. In 1903, the Infantile Mortality was 108 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Among persons at this age-period there were 24 deaths, or at the rate of 4·6 per 1,000 of population, as compared with 4·2 per 1,000 in 1903.

DEATH-RATE FROM TUBERCULOSIS.—To Tubercular diseases were due 7 deaths, or at the rate of 1·4 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 2·4 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—These diseases were the cause of 3 deaths, or at the rate of 0·58 per 1,000 of population, as compared with 1·2 per 1,000 in 1903.

DEATH-RATE FROM CANCER.—To Cancer were ascribed 7 deaths, or at the rate of 1·4 per 1,000 of population. In 1903, the death-rate from Cancer was the same.

Both the birth-rate and the death-rate have fallen about 30 per cent. from the average of the previous ten years. This marked improvement in the death-rate is mainly due to a greatly lessened infantile mortality, which has fallen over 50 per cent. Improvement has also taken place in the death-rate from Tubercular and Respiratory diseases and among aged persons. The death-rate from Zymotics and Cancer has slightly risen.

INFECTIOUS DISEASE.—Sixty-seven cases of infectious disease were notified during the year. These comprised 64 of Scarlet Fever, 1 of Smallpox, 1 of Enteric Fever, and 1 of Erysipelas.

The necessity for an isolation hospital to be available for the Borough was markedly felt during the outbreak of Scarlet Fever and when the case of Smallpox was discovered. The Authority have now agreed to join the Conway Rural and Penmaenmawr districts in erecting a hospital for the isolation of the usual fever cases, and in maintaining the small Smallpox hospital at Llysfaen.

Owing to the outbreak of Scarlet Fever the Day Schools were closed for several weeks during the summer.

The case of Smallpox was that of a militiaman from Birkenhead who had come to the camp on the Morfa with his regiment. The Conway Rural Council kindly allowed the patient to be removed to their hospital at Llysfaen where he made a good recovery. A large number of men in camp at the time were vaccinated and happily no further spread of the disease took place.

SANITARY WORK.

WATER SUPPLY.—Throughout the year the whole of the district enjoyed an ample supply of excellent water from the Cowlyd mains.

New mains of a total length of 700 yards were laid at Victoria Drive and Gannock Park. By these new mains 6 houses are served.

SEWERAGE.—The only extensions of the sewerage system which have been made is a new sewer about 100 yards in length at Gannock Park, and the completion of the sewer for the Marl District.

SCAVENGING.—Weekly removal of house refuse has been in force during the year with satisfactory results.

HOUSE ACCOMMODATION.—Fourteen houses were built during 1904. Of these only three were of a type suitable for workingmen's families.

FACTORY AND WORKSHOP ACT.—The 30 factories, workshops, and workplaces on the register are reported to be satisfactory as regards cleanliness, air space, ventilation, and sanitary conveniences.

The 17 bakehouses have been found in good sanitary condition, and the requirements of the Act, as regards limewashing, have been regularly carried out.

During the year 71 visits of inspection have been paid to the workshops and workplaces.

MATTERS SPECIALLY REPORTED.

The absence of any isolation hospital for the Borough was once more pointed out. It is to be earnestly hoped that the decision of the three Councils above mentioned to provide this urgent necessity for their districts by united action will be carried into effect as soon as possible.

Report of Sanitary Inspector, Mr. F. A. Delamotte, Cert. San. Inst.

No. of complaints received	15
„ „ inspections of houses or premises	872
„ „ orders given for the sanitary amendment of houses	6
„ „ houses or premises cleansed, repaired or whitewashed	8
„ „ houses disinfected or supplied with disinfectants	70
„ „ house drains repaired, cleansed or trapped	13
„ „ house drains ventilated	2
„ „ privies and W.C.'s—new provided	6
„ „ privies and W.C.'s—repaired	29
„ „ W.C.'s supplied with water	6
„ „ accumulations of manure and refuse removed	1
„ „ legal proceedings taken	2
„ „ houses closed as unfit for habitation	1

LLANDUDNO URBAN SANITARY DISTRICT.

Area	....	....	....	....	2,839 acres.
Population, Census 1891	....	....	....	....	7,348
„	„	1901	....	....	9,279
Estimated population, June, 1904	....	....	....	....	10,010

BIRTH-RATE.—The number of births registered during the year was 200, or at the rate of 20 per 1,000 of population. In 1903, the birth-rate was 19·3 per 1,000.

DEATH-RATE.—From all causes there were registered 142 deaths, being at the rate of 14·2 per 1,000 of population. Of these, 32 were described as non-residents. The remaining deaths were at the rate of 11 per 1,000.

In 1903, the gross death-rate was 14·8 per 1,000, and the corrected death-rate 12·3 per 1,000.

ZYMOTIC MORTALITY.—The seven principal Zymotics caused 4 deaths, or at the rate of 0·39 per 1,000 of population. Of these, 3 were caused by Diarrhœa, and 1 by Scarlet Fever. In 1903, the Zymotic Mortality was 1·12 per 1,000.

INFANTILE MORTALITY.—Of infants under one year of age there were 27 deaths, or in the proportion of 135 per 1,000 registered births. In 1903, the Infantile Mortality was 142 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Among persons in this class there were 38 deaths, or at the rate of 3·8 per 1,000 of population.

In 1903, the death-rate in this class was 4·6 per 1,000.

DEATH-RATE FROM TUBERCULOSIS.—Tubercular diseases were the cause of 20 deaths, or at the rate of 2 per 1,000 of population. Of these, 5 were deaths of non-residents. The death-rate from Tuberculosis among residents was 1·5 per 1,000.

In 1903, the gross death-rate from Tuberculosis was 1·4 per 1,000, and that among residents was 1·1 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—These diseases were the cause of 12 deaths, one of which was that of a visitor. The gross death-rate from these diseases was 1·2 per 1,000, as compared with 0·9 per 1,000 in 1903, and that among residents was 1·1 per 1,000.

DEATH-RATE FROM CANCER.—Cancer was the cause of 7 deaths, or at the rate of 0·7 per 1,000. Of these, two were deaths of non-residents. The deaths among residents were at the rate of 0·5 per 1,000 as compared with 1 per 1,000 during 1903.

The birth-rate was a low one, and was somewhat below the average of the previous ten years.

The general death-rate among residents was 1·5 per 1,000 lower than the average for the previous ten years. The lessening in the mortality among infants contributed largely to the lowness of the general death-rate. The Infantile Mortality was 16 per cent. lower than the average during the ten years 1894—1903. The death-rate from Zymotic and Respiratory diseases, and from Cancer was low.

INFECTIOUS DISEASE.—The number of notifications of infectious disease received during the year was 103. These were as follows:—

Scarlet Fever	82
Diphtheria	12
Erysipelas	4
Enteric Fever	4
Puerperal Fever	1

To the Isolation Hospital were removed 102 patients (including 6 removed for observation). Of this large number only one, a case of Scarlet Fever, proved fatal.

In 1903, 75 cases of infectious disease were notified.

SANITARY WORK.

WATER SUPPLY.—By means of the duplicating of the trunk main recently completed for a distance of nine miles an abundant supply of very pure water from Dulyn Lake is supplied to the town.

New water mains of a total length of 737 yards were laid during the year. Fifteen houses, situated in the Eastern and Western portions of the district have been provided with a new supply.

SEWERAGE.—The difficult work of extending the main outfall sewer for a distance of 260 yards by laying 27 inch iron pipes on piles, has been completed. The protection of the pipe-line by stonework has also been completed.

About 890 yards of new sewers have been laid in various parts of the district, by which 27 new houses and 7 existing houses have been served.

313 yards of sewers, serving 32 houses, were relaid by the Llandudno Workmen's Dwellings Company.

REMOVAL OF HOUSE REFUSE.—The same system of dealing with the house refuse has been adhered to with much benefit to the town. The Sanitary Authority provides proper metal receptacles for the storage of refuse, and these are called for at short intervals, and their contents removed to the town destructor. In summer 15 men with 5 horses and carts are regularly employed in this useful work.

HOUSE ACCOMMODATION.—Thirty-seven houses were built during the year, of these fifteen were suitable for workmen's dwellings.

The Authority have taken advantage of the Housing of the Working Classes Act of 1903, and their application for the extension of the repayment period of the various loans for building workmen's dwellings has been granted by the Local Government Board. The loan period for the land at King's Road has been extended from 30 to 80 years, that for the 32 houses erected at King's Road has been extended from 40 to 60 years, and that for the 19 houses in Council Street has been extended from 30 to 61 years.

PUBLIC SLAUGHTER-HOUSE.—This institution has been maintained in good order and continues to render undoubted service to the town and neighbourhood. Altogether 31,860 animals were slaughtered during the year. Of these 28,386 were sheep, 1,479 pigs, 1,023 beasts, and 972 calves. The receipts amounted to over £278, of which £100 was received from the public portion.

Two carcasses of beef were discovered to be affected with Tuberculosis and were destroyed.

FOOD AND DRUGS ACT.—Seven samples of milk were purchased for analysis. Six were found to be genuine, and one contained a trace of Boracic Acid.

Twenty boxes of Californian Plums and 9 boxes of Californian Pears were found to be unsound, and were destroyed.

COWSHEDS AND DAIRIES ORDER.—The number of registered premises is as follows:—

Cowsheds	23
Dairies	23
Milkshops	3

Outside the district are 12 cowsheds and dairies from which milk is supplied to the town.

All these premises have been regularly inspected and various instructions given. The sanitary condition of the cowsheds has been found to be well looked after by the occupiers.

One new cowshed was built during the year.

FACTORY AND WORKSHOP ACT.—Special attention continues to be paid by the Sanitary Authority to the requirements of this Act.

The number of workshops upon the register is 107, and the premises are classified as follows:—

Bakehouses	28
Dressmakers' workshops	11
Painters' workshops	10
Joiners' workshops	9
Cobblers' workshops	8
Tailors' workshops	7
Bottle-washing workshops	6
Milliners' workshops	5
Watchmakers' workshops	5
Mineral Waters' workshops	4
Hand Laundries'	4
Blacksmiths' workshops	3
Cabinet Makers' workshop	3
Coachbuilders' workshops	2
Upholsterers' workshops	2

Of the 28 bakehouses on the register, seven are underground bakehouses. Considerable alterations to these premises have been effected during the year in order to comply with the requirements of

the Authority. In their lighting, ventilation, flooring and surroundings much improvement has taken place and certificates have been granted.

Report of Sanitary Inspector, Mr. W. Little, Cert. San. Inst.

Unabated cases from 1903	10
New cases during the year	359
Cases abated during the year	349
Cases in process of remedy	4
Total number of inspections of premises	5,600
1. Inspection of premises for nuisance	5,193
2. Inspection of premises where Zymotic disease has occurred	121
3. Inspection of premises where offensive trades are conducted	1
4. Inspection of workshops	131
5. Inspection of bakehouses	154
No. of complaints investigated	222
,, ,, notices issued for abatement or abolition of nuisances....	359
,, ,, notices in regard to workshops	5
,, ,, premises where Zymotic disease has occurred	82
,, ,, premises disinfected after Zymotic disease, or for cleansing purposes	245
,, ,, houses cleansed, repaired, whitewashed, etc.	157
,, ,, cases of over-crowding abolished	1
,, ,, waste water pipes disconnected from the house drains	29
,, ,, house drains and water closets repaired, cleansed and ventilated	468
Smoke and water test applied	79
Smoke nuisance abated	3
Old privies and ashpits abolished	12
New water closets provided	10
Urinals provided, repaired, etc.	6
Refuse bins provided	1
Accumulations of stagnant water, manure and other refuse removed	336
Removal of animals improperly kept	10
Yards repaired, flagged or asphalted	79
Manure bins provided or repaired	2
Impure water supply abolished	6

COLWYN BAY AND COLWYN URBAN SANITARY DISTRICT.

Area	5,238 acres
Population, Census 1891	4,754
,, ,, 1901	8,689
Estimated population, June, 1904	10,571

BIRTH-RATE.—There were registered during the year 193 births, or at the rate of 18·3 per 1,000 of population. In 1903, the birth-rate was 20·3 per 1,000.

DEATH-RATE.—The number of deaths from all causes was 156, or at the rate of 14·8 per 1,000 persons living. Of these, 33 were described as visitors, including 4 non-residents who died in the Cottage Hospital. On the other hand, 3 persons belonging to Colwyn Bay died in public institutions elsewhere. If these 36 deaths be taken into consideration, a corrected death-rate of 11·9 per 1,000 is obtained.

In 1903, the gross death-rate was 13·1 per 1,000, and the corrected death-rate 10·3 per 1,000.

ZYMOTIC MORTALITY.—The principal Zymotic diseases caused ten deaths, or at the rate of 0·94 per 1,000 of population. Of these, 4 were due to Diarrhœa, 3 to Whooping Cough, 2 to Enteric Fever, and 1 to Measles. In 1903, the gross Zymotic Mortality was 0·7 per 1,000 of population.

INFANTILE MORTALITY.—Of infants under one year of age there were 36 deaths, or at the rate of 186 per 1,000 registered births. In 1903, the Infantile Mortality was 173 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Among persons at this age-period there were 47 deaths, or at the rate of 4·4 per 1,000 of population. Of these, 7 were deaths of visitors. If these be deducted, a corrected death-rate of 3·8 per 1,000 is obtained.

In 1903, these rates were respectively 2·9 and 2·4 per 1,000.

DEATH-RATE FROM TUBERCULOSIS.—Tubercular diseases were the cause of 14 deaths, or at the rate of 1·3 per 1,000 of population. Seven of these were deaths of visitors. After deducting these a corrected death-rate of 0·6 per 1,000 is obtained.

During 1903, the gross death-rate from Tuberculosis was 1·2 per 1,000, and that among residents was 0·6 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Lung diseases were the cause of 18 deaths, or at the rate of 1·7 per 1,000 of population, as compared with 0·9 per 1,000 in the previous year.

DEATH-RATE FROM CANCER.—Eleven persons, including two visitors, died from Cancer. The gross death-rate from this disease was 1 per 1,000, and that among residents was 0·8 per 1,000. In 1903, these rates were 1·2 and 1·1 per 1,000 respectively.

The birth-rate of the year was unusually low. The death-rate was at a low level. The death-rate among residents was practically the same as the average during the previous ten years. The mortality in each disease group and at all age periods was on a low level excepting in one important group. The mortality among infants was high. If by any means the infantile mortality could have been reduced to 100 per 1,000 births, the rate of mortality in some counties, the death-rate among residents in Colwyn Bay during 1904 would have been under 10 per 1,000.

INFECTIOUS DISEASES.—Forty-three cases of infectious disease were notified during the year. Of these, 22 were cases of Scarlet Fever, 8 of Diphtheria, 7 of Erysipelas, and 6 of Enteric Fever.

Seven of the Scarlet Fever patients were removed to the Isolation Cottage, Bryn Awel.

In 1903, 51 notifications were received.

ISOLATION HOSPITAL.—An important item in the sanitary work of the year was the erection of the new Isolation Hospital at Bronynant. The buildings comprise two pavilions, containing four wards for patients, with duty rooms for nurses, an administration cottage, laundry, mortuary, coach-house and a disinfecting station. A powerful steam disinfector of the Washington Lyon type has been installed. This has been used several times and has given satisfactory results.

The isolation cottage at Marian Bach has not been required during the year.

SANATORIUM FOR TUBERCULOSIS.—The proposal of the Denbighshire County Council to erect a Sanatorium for Tubercular patients has

moved forward a stage, by the presentation of a petition by the Sanitary Authority of the Wrexham Rural District.

SANITARY WORK.

WATER SUPPLY.—The continued growth of the town has rendered necessary numerous extensions of the water mains of a total length of 2,285 yards. In the following streets new mains were laid:—Brompton Avenue (227 yards), Coedcoch Road (120 yards), Dinarth Road (360 yards), Egerton Road (70 yards), Elwy Road (93 yards), Everard Road (140 yards), Grange Road (114 yards), Groes Road (79 yards), Hesketh Road (162 yards), King's Road (205 yards), Llannerch Road (180 yards), Llandrillo Road (120 yards), Nantyglyn Road (357 yards), and Woodhill Road (58 yards). These new mains supply 51 houses.

A new six inch main, 137 yards long, was laid in Marine Road in lieu of the old main which was found incrustated.

The need for a better supply for the higher portions of the district has been borne in mind by the Authority. Plans for the provision of an ample supply to this neighbourhood, by pumping from the town mains to a reservoir, situated at an altitude of 665 feet above ordnance datum, have been submitted to the Local Government Board for their approval. There are at present 59 houses waiting to be supplied by the proposed scheme.

SEWERAGE.—The new Sewerage Works authorized by the Special Act passed in the Session of 1902, consisting of a main intercepting sewer, various additional sewers, surface water drains, a storage reservoir, and outfall sewer into deep water are being carried out under the supervision of the Engineer, Mr. Robert Green, C.E., and have made marked progress. Several miles of branch and main sewers have been laid.

In addition to these extensive works various new private sewers have been laid by the owners of property, and 1,588 yards of public sewers were constructed in Rhos Road, Llandrillo Road, Whitehall Road, and Station Road, Old Colwyn.

SCAVENCING.—The same system of collection and removal of refuse at weekly intervals from each house has been in force. During the year 6,812 loads of house and trade refuse were removed to the three

depôts. This was an increase of 476 loads upon the amount removed in the previous year.

The available tipping ground has become much reduced in area. The question of disposing of the refuse in a Destructor has been before the Authority, but no definite steps in the matter have yet been taken.

COWSHEDS AND DAIRIES.—The number of registered Dairies, Milkshops and Cowsheds is 22. Special attention is paid to these premises. On the whole they have been found fairly well kept.

SLAUGHTER-HOUSES.—The private Slaughter-houses are frequently inspected, and have been found to be well attended to by the occupiers.

HOUSE ACCOMMODATION.—103 new houses were erected during the year. Fortunately, the demand for workmen's dwellings has not been forgotten. Of the new houses, 28 in the Old Colwyn district are suitable for the working classes. They contain from 4 to 6 rooms, and are let at a rental of from 4s. 6d. to 7s. per week. In addition to these, there are now in the course of erection 32 more houses suitable for workmen's families.

PUBLIC CEMETERY.—The provision of a public cemetery for the district has met a pressing need. The number of interments up to December 31st, 1904, was 39.

The absence of a public mortuary has, on several occasions, been much felt.

FACTORY AND WORKSHOP ACT.—The number of workshops upon the register is 61, classified as follows:—

Bakehouses	23
Dressmakers' and Milliners	14
Tailors	9
Bootmakers	6
Laundries	3
Other workshops	6

All these workshops have been inspected several times during the year. Altogether 209 visits of inspection were paid to them. In 16 instances defects in ventilation, cleanliness, or in other respects were discovered, but were remedied by the occupiers after written notice by the Authority. In other respects these workshops have been found satisfactory.

The two underground bakehouses were closed and a new one of modern type has been erected above ground.

Report of Sanitary Inspector, Mr. W. Jones, Assoc. M.I.C.E., and Assistant Inspector, Mr. W. H. Jones, Cert. San. Inst.

Total No. of Inspections and Visits made 1,682

Infectious Disease.

No. of cases inquired into	42
,, ,, houses disinfected	33

Dwellings.

No. erected	103
,, made fit for habitation	0
,, of cases of overcrowding	4

Drainage.

No. laid or re-laid	121
,, cleansed, trapped, ventilated, &c.	94
,, of new water closets	104
,, ,, repairs to water closets	68
,, ,, new privies and ashpits	1
,, ,, privies converted into W.C.'s	1

Scavenging.

No. of privies emptied	80
,, ,, pan closets emptied	0
,, ,, ashpits emptied	130

Refuse.

No. of accumulations removed	6,812
-----------------------------------	-------

Water.

No of new places supplied	140
,, ,, repairs, fittings, &c.	187

Dairies and Cowsheds.

No. of persons registered	30
„ „ places in use and inspected	30

Slaughter-houses.

No. registered or licensed	5
---------------------------------	---

Offensive Trades.

No. dealt with	0
---------------------	---

Animals.

No. of cases causing nuisance	20
------------------------------------	----

Lodging-houses.

No. registered and inspected	0
-----------------------------------	---

Clerical Work.

No. of letters received	352
„ „ letters written	465
„ „ informal notices served	215
„ „ informal notices complied with	84

Legal Proceedings.

No. of formal notices served	98
„ „ formal notices complied with	97
„ „ prosecutions	1

LLANRWST URBAN SANITARY DISTRICT.

Area	822 acres.
Population, Census 1891	2,449
" " 1901	2,645
Estimated population, June, 1904	2,712

BIRTH-RATE.—The number of births registered during the year was 57, or at the rate of 21 per 1,000 of population. In 1903, the birth-rate was 23·8 per 1,000.

DEATH-RATE.—There were registered from all causes 55 deaths, or at the rate of 20·3 per 1,000 persons living. Of these, two were of persons from outside the district who died in the Union Workhouse. On the other hand, two persons belonging to Llanrwst died in public institutions elsewhere.

In 1903, the gross death-rate was 19·7 per 1,000, and the corrected death-rate 18·6 per 1,000.

ZYMOTIC MORTALITY.—To the principal Zymotic diseases 2 deaths were ascribed, or at the rate of 0·74 per 1,000 of population. These deaths were both due to Diarrhœa.

In 1903, the Zymotic Mortality was 1·4 per 1,000.

INFANTILE MORTALITY.—Of infants under one year of age there were 10 deaths, or in the proportion of 175 per 1,000 registered births. In 1903, the Infantile Mortality was 141 per 1,000 births.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Among persons at this age-period there were 24 deaths, or at the rate of 8·8 per 1,000, as compared with 4·4 per 1,000 in 1903.

DEATH-RATE FROM TUBERCULOSIS.—To Tuberculosis were ascribed 5 deaths, or at the rate of 1·8 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 2·2 per 1,000.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—The chief Respiratory diseases were the cause of 11 deaths, or at the rate of 4·1

per 1,000 of population. In 1903, the death-rate from these diseases was 3·3 per 1,000.

DEATH-RATE FROM CANCER.—There were caused by Cancer 4 deaths, or at the rate of 1·5 per 1,000 of population. In 1903, the Cancer death-rate was 1·1 per 1,000.

A decline in the birth-rate and in the death-rate has taken place. The improvement in the death-rate was principally due to a lessened mortality in the group of "all other diseases," and from Zymotic diseases. The death-rate among infants, aged persons, and from respiratory diseases was at a high level.

INFECTIOUS DISEASE.—Fifteen cases of infectious disease were notified. These consisted of 9 cases of Scarlet Fever, 4 of Diphtheria, and 2 of Erysipelas.

In 1903, 26 cases were notified.

SANITARY WORK.

WATER SUPPLY.—The work of extending the water mains of Llanrwst and Trefriw so as to tap Crafnant Lake has been completed. Much improvement to the town supply has resulted from the execution of this important undertaking. The pressure in the water mains has greatly increased; and all parts of the town are now well supplied with water of excellent quality.

SEWERAGE.—One new sewer of a length of 60 yards has been laid by which 5 houses are served.

The town sewers have been maintained in good order.

HOUSE ACCOMMODATION.—One house was erected during the year, and ten others are in course of erection.

SCAVENGING.—The systematic collection of house refuse at weekly intervals from all parts of the town has been in force throughout the year with good results.

STREET IMPROVEMENTS.—Much improvement has resulted from the construction of footways, paving of streets, etc., in various parts of the town.

LODGING-HOUSES.—There are three common lodging-houses on the register. They are visited regularly by the Sanitary Inspector, and have been found to be kept in a sanitary condition.

SLAUGHTER-HOUSES.—The private slaughter-houses are regularly visited by the Sanitary Inspector, and have been kept in good order.

COWSHEDS, DAIRIES AND MILKSHOPS.—The cowsheds have been inspected, and some improvement in their condition is reported. Some of them require improved means of drainage, better floors, and more frequent removal of manure.

FACTORY AND WORKSHOP ACT.—To the 48 workshops and workplaces in Llanrwst 96 visits have been paid by the Sanitary Inspector during the year. The ventilation was found insufficient in one instance, and two other premises were found defective. With these exceptions, the workshops were found in a sanitary condition.

Report of Sanitary Inspector, Mr. George Wynne.

Total No. of Inspections and Visits made 652

Infectious Disease.

No. of cases inquired into	16
,, of houses disinfected	5

Dwellings.

No. erected	3
,, made fit for habitation	0
,, of cases of over-crowding	1

Drainage, &c.

No. laid or re-laid	7
,, cleansed, trapped, ventilated, &c.	45
,, of new water closets	11
,, of repairs to water closets	94
,, of new privies and ashpits	0
,, of privies converted into W.C.'s.	0

Scavenging.

No. of privies emptied	7
,, of pan closets emptied	4
,, of ashpits emptied	44

Refuse.

No. of accumulations removed	0
------------------------------------	---

Water.

No. of new places supplied	5
,, of repairs, fittings, &c.	51

Dairies and Cowsheds.

No. of persons registered	17
,, of places in use and inspected	15

Slaughter-houses.

No. registered or licensed	7
----------------------------------	---

Offensive Trades.

No. dealt with	0
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Animals.

No. of cases causing nuisance	3
-------------------------------------	---

Lodging-houses.

No. registered and inspected	3
------------------------------------	---

Clerical Work.

No. of letters received	47
,, letters written	54
,, of informal notices served	138
,, of informal notices complied with	138

Legal Proceedings.

No. of formal notices served	7
,, of formal notices complied with	6
,, of prosecutions	0

BETTWSYCOED URBAN SANITARY DISTRICT.

Area	3,633 acres.
Population, Census 1891	740
,, ,, 1901	1,070
Estimated population, June, 1904	1,120

BIRTH-RATE.—The number of births registered during the year was 21, or at the rate of 18·8 per 1,000 of population. During 1903, the birth-rate was 19·1 per 1,000.

DEATH-RATE.—There were registered from all causes 18 deaths, or at the rate of 16·1 per 1,000 of population. In 1903, the death-rate was 12·7 per 1,000.

ZYMOTIC MORTALITY.—Five deaths were due to the principal Zymotic diseases. These were all deaths from Diphtheria, which is said on good authority to have been absent from the district for 20 years. The Zymotic Mortality was 4·5 per 1,000 of population.

In 1903, the Zymotic Mortality was nil.

INFANTILE MORTALITY.—Among infants under one year of age there were five deaths, or at the rate of 238 per 1,000 registered births. In 1903, the Infantile Mortality was 48 per 1,000.

DEATH-RATE AMONG PERSONS AGED 65 AND UPWARDS.—Three deaths occurred among persons aged 65 and upwards, or at the rate of 2·6 per 1,000 of population, as compared with 3·6 per 1,000 in 1903.

DEATH-RATE FROM THE CHIEF RESPIRATORY DISEASES.—No deaths were caused by the chief Lung diseases. In 1903, the death-rate from these diseases was 1·8 per 1,000 of population.

DEATH-RATE FROM TUBERCULOSIS.—Tubercular disease was the cause of three deaths, or at the rate of 2·6 per 1,000 of population. In 1903, the death-rate from Tuberculosis was 4·5 per 1,000.

DEATH-RATE FROM CANCER.—As in 1903, no deaths were caused by Cancer.

Vital Statistics for the Year,
and
Meteorological Observations, etc.,
During 1904.

VITAL STATISTICS FOR 1904.

NAME OF DISTRICT.	Birth-rate per 1000 of population.	Death-rate per 1000 of population.	Zymotic Mortality per 1000 of population.	Infantile Mortality per 1000 Registered Births.	Death-rate among persons aged 65 and upwards.	Death-rate from Tuberculosis per 1000 of population	Death-rate from the Chief Respira- tory Diseases.	Death-rate from Cancer per 1000 of population.
<i>Rural Districts—</i>								
Llanrwst	22·6	16·4	—	79	8·5	1·6	2·7	1·3
Geirionydd	24·5	{ 21·9 22·1	0·20	165	7·9	3·2	3·0	1·2
Deudraeth	27·6	{ 15·6 14·7	0·88	91	5·5	2·8	0·88	1·3
Glaslyn	22·8	{ 22·3 22·8	1·7	85	7·0	4·2	1·9	2·5
Lleyn	21·7	18·3	0·30	98	8·1	2·6	2·3	1·5
Gwyrfai	26·5	{ 16·0 16·3	0·59	137	4·9	2·7	2·2	0·88
Dwyran	23·2	{ 16·6 17·2	1·3	200	5·0	2·3	1·7	0·33
Ogwen	28·9	{ 15·8 16·6	0·31	114	6·6	1·6	1·9	0·78
Aethwy	22·6	{ 14·7 15·6	0·11	71	7·0	2·1	0·81	0·81
Conway	27·5	{ 14·0 14·9	1·3	141	5·7	1·1	2·6	0·43
Glanconway	27·2	16·6	1·3	195	4·6	2·6	4·6	0·66
<i>Urban Districts—</i>								
Ynyscynhaiarn ..	25·7	{ 16·7 17·3	0·21	120	5·3	3·3	2·5	1·0
Criccieth	18·6	{ 19·9 19·2	—	38	7·8	6·4	2·1	1·4
Pwllheli	23·2	{ 18·3 17·2	—	79	6·0	3·4	2·1	1·8
Carnarvon	23·0	{ 20·4 19·4	0·72	143	7·6	2·8	1·9	1·3
Menai Bridge ..	19·3	{ 15·8 16·4	—	121	8·2	2·3	0·58	2·9
Bangor	23·0	{ 16·1 14·4	1·3	144	4·7	1·4	1·3	0·34
Bethesda	25·0	{ 21·9 22·5	0·39	133	8·4	3·3	1·7	2·5
Llanfairfechan ..	31·0	{ 20·7 19·0	1·0	{ 111 100	{ 6·9 6·2	3·4	{ 3·4 2·8	1·0
Penmaenmawr ..	28·1	{ 12·6 10·5	—	{ 140 121	2·1	{ 2·9 1·8	1·3	0·78
Conway	22·4	{ 14·3 12·2	0·96	78	4·6	1·4	0·58	1·4
Llandudno	20·0	{ 14·2 11·0	0·39	135	{ 3·8 2·5	{ 2·0 1·5	{ 1·2 1·1	{ 0·7 0·5
Colwyn Bay & Colwyn	18·3	{ 14·8 11·9	0·94	{ 186 181	{ 4·4 3·8	{ 1·3 0·6	{ 1·7 1·5	{ 1·0 0·8
Llanrwst	21·0	20·3	0·74	175	8·8	1·8	4·1	1·5
Bettwsycoed ..	18·8	16·1	4·5	238	2·6	2·6	—	—
Rural Districts ..	25·1	16·7	0·58	120	6·3	2·4	2·1	1·1
Urban Districts ..	22·5	16·8	0·72	135	5·5	2·3	1·7	1·1
Combined Districts ..	23·9	16·7	0·64	126	5·9	2·4	1·9	1·1
England & Wales ..	27·9	16·2	1·94	146				

N.B.—When two Death-rates are given, the lower is the corrected one.

METEOROLOGICAL OBSERVATIONS FOR THE YEAR 1904.

MONTH.	CARNARVON.										LLANDUDNO. Observer, Mr. W. Little.										ROYAL OBSERVATORY, GREENWICH.			
	Dry & Wet bulb Tempera- ture.		Temperature in the shade.			Mean Amount of cloud.	Rain.		Mean reading of the Barometer.	Total duration of bright sunshine. No. of hours.	Rainfall in inches.	Relative humidity.	Mean daily range.	Temperature in the shade.			Maximum.	Minimum.	Tempera- ture in the shade.	Rain.		Mean Amount of cloud.		
																							Dry.	Wet.	Maximum.	Minimum.	Mean.	Amount collected in inches.	No. of days on which rain fell.
January	41.9	40.0	46.7	37.7	42.2	7.1	7.32	23	29.89	29.833	3.48	84%	8.8	42.2	46.6	37.8	42.2	43.7	33.8	2.51	16	7.3		
February	39.9	38.2	43.8	35.8	39.8	6.7	3.95	21	29.81	29.508	3.00	85%	8.3	39.8	44.0	35.7	39.8	44.4	34.5	2.55	19	6.5		
March	41.3	38.9	46.4	31.9	44.1	6.3	3.90	11	29.69	29.956	1.31	78%	10.6	41.5	46.8	36.2	41.5	47.3	33.7	1.36	12	7.2		
April	48.2	45.6	52.9	42.6	47.5	7.7	3.23	17	29.90	29.881	1.49	77%	10.9	48.5	54.0	43.1	48.5	57.7	40.7	1.01	13	6.2		
May	53.0	49.2	59.1	45.7	52.4	7.2	1.637	14	30.21	29.888	1.85	75%	11.4	51.5	57.2	45.8	51.5	62.0	45.7	1.92	14	6.8		
June	58.4	54.0	64.3	49.6	56.9	4.8	2.48	9	30.10	30.018	1.93	71%	12.5	56.7	63.0	50.5	56.7	68.4	48.6	0.87	8	6.3		
July	61.1	60.5	70.0	53.8	61.4	4.0	3.37	14	30.05	29.975	2.37	71%	12.6	61.6	67.9	55.3	61.6	77.3	55.2	2.23	14	4.7		
August	59.6	56.5	65.5	52.3	58.9	6.2	3.95	13	29.10	29.970	3.26	74%	12.2	59.6	65.7	53.5	59.6	73.6	51.8	1.24	8	4.6		
September	59.9	53.3	63.3	50.5	56.9	5.0	2.895	12	29.77	30.003	1.15	75%	12.3	57.2	63.3	51.0	57.2	64.7	46.9	1.34	11	4.6		
October	50.0	47.3	54.2	45.9	50.0	5.9	3.16	12	29.53	30.121	1.29	80%	9.7	52.1	57.0	47.3	52.1	57.5	43.6	1.74	16	6.4		
November	46.0	44.0	50.0	40.5	45.1	7.0	3.35	16	30.13	30.086	1.84	80%	9.0	46.1	50.6	41.6	46.1	47.5	36.7	1.65	11	7.0		
December	42.1	40.9	46.0	38.4	42.2	7.2	4.95	21	30.18	29.867	3.01	75%	13.2	40.6	47.2	34.0	40.6	44.9	35.6	2.25	23	7.6		
Mean	49.8	47.3	55.1	43.7	49.7	6.2			29.86	29.925		77%	10.9	49.7	55.2	44.3	49.7	57.4	42.2			6.2		
Total							44.192	183			25.98									20.67	165			

METEOROLOGICAL OBSERVATIONS FOR THE YEAR 1904.

COLWYN BAY. Observer, Mr. W. Jones, Assoc. M. Inst. C.E.												
MONTH.	BETTWSYCOED. Observer, Dr. Macdonogh.											
	Baro- meter.	Air Temperatures.				Bright Sunshine Total in hours and tenths.	Rain- fall.	Relative Humidity at 9 a.m.		No. of Calm days.	No. of Gales.	No. of days of snow.
		Means of		Max. and Min. Combined.	Extreme.							
		Maximum.	Minimum.		Maximum.			Minimum.				
January ..	29.860	45.6	34.9	40.3	52.0	22.0	34.0	5.73	89	10	1	0
February ..	29.505	43.3	33.7	38.5	51.5	22.0	40.5	5.20	86	15	2	2
March ..	29.973	46.3	33.7	40.0	54.0	24.5	89.1	2.55	80	15	0	2
April ..	29.897	54.0	41.5	47.8	64.0	34.0	127.3	3.80	72	4	3	0
May ..	29.912	58.4	42.8	50.6	78.0	33.0	133.0	3.06	73	10	1	0
June ..	30.036	63.8	47.2	55.5	75.0	39.0	187.3	1.55	68	8	0	0
July ..	29.986	69.3	52.0	60.7	82.0	44.0	183.2	3.16	71	8	0	0
August ..	29.971	66.2	49.7	58.0	80.5	38.5	167.0	4.56	73	8	1	0
September ..	30.033	63.0	45.3	54.2	71.0	37.5	151.6	2.13	77	9	0	0
October ..	30.090	56.9	41.9	49.4	66.8	31.0	107.8	3.33	83	10	1	0
November ..	30.059	49.0	37.7	43.4	60.0	21.0	38.4	3.20	84	18	2	3
December ..	29.881	45.1	35.3	40.2	56.0	24.0	30.5	5.99	90	19	2	1
Mean ..	29.934	55.1	41.3	48.2	82.0	21.0			79			
Total ..							*1289.7	44.26		134	13	8
								</				

* A Minimum possible 2 hours daily intercepted by mountains.

APPENDIX.

Carnarvonshire Joint Sanitary Committee.

Summary of Expenses Certified by the District Auditor.
Year ended Michaelmas, 1904.

	£	s.	d.	£	s.	d.
Members attending meetings	23	3	10			
Medical Officer's Expenses:—						
Printing Reports	16	17	0			
„ Pamphlets	7	13	0			
Office Expenses	37	8	10			
Fitting up Laboratory	9	12	4			
Towards his Clerk's Salary	80	0	0			
				151	11	2
Clerk's Expenses:—						
Salary of Clerk	15	0	0			
Printing, Stationery and Postages	7	12	3			
				22	12	3
				£197	7	3

APPORTIONMENT OF ABOVE EXPENSES.

DISTRICT COUNCILS.	RATEABLE VALUE.	APPORTION- MENT.
	£	£ s. d.
Ogwen	49,657	14 6 4
Aethwy	48,286	13 18 5
Gwyrfai	95,293	27 10 6
Dwyran	16,186	4 14 4
Conway	37,497	10 16 3
Glan Conway	9,777	2 16 5
Geirionydd	23,627	6 16 3
Llanrwst	31,526	9 1 9
Deudraeth	26,333	7 11 10
Glaslyn	13,477	3 17 9
Lleyn	79,363	22 17 8
Bangor	40,677	11 14 7
Bethesda	9,599	2 15 4
Carnarvon	33,304	9 12 0
Criccieth	8,083	2 6 7
Llandudno	96,341	27 15 6
Llanfairfechan	13,558	3 18 2
Penmaenmawr	22,846	6 11 9
Ynyscynhaiarn	14,736	4 5 0
Pwllheli	14,013	4 0 10
	£684,179	£197 7 3

CARNARVON:

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